



# AGRICULTURAL OUTLOOK

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***The New  
Central Europe  
Part II***

# AGRICULTURAL OUTLOOK

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*Cover photo courtesy Romanian National Tourist Office. Village of Borsa, Maramures region, northern Romania.*

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## News of Whitefly Pest, Central Europe, U.S.-Mexico Relations, Soviet Food Aid, and Farmer Mac

**F**or U.S. farmers, 1991 has been a stark reminder that nature ultimately has the upper hand in agriculture. In June and July, farmers in the Corn Belt coped with dry weather. In the Delta, heavy spring rains delayed soybean, cotton, and rice plantings. Lack of moisture in Kansas early this fall means the winter wheat crop there is off to a poor start.

In California, where farmers are still wrestling with a 5-year dry spell, a whitefly infestation is wreaking havoc on melons and winter vegetables in the Imperial Valley, America's winter salad bowl. Based on industry reports, California farmers face losses of 85-95 percent of the fall melon crop, and yields 25-50 percent below normal for winter crops of broccoli, cauliflower, and lettuce.

The resulting cut in supplies of winter vegetables will lead to higher retail prices for consumers through early 1992. On the other hand, abundant supplies of pork and poultry will lower retail prices for those foods during the holiday season and continuing through early next year.

**This month's *Agricultural Outlook*** wraps up a two-part series on agriculture in the new economies of Central and Eastern Europe. As free markets replace central planning in the region, seven very unique economies are emerging. Part II of the series examines developments in the Balkan states—Yugoslavia, Bulgaria, Romania, and Albania.

The political environment in these four countries—past and present—makes economic reform all the more challenging. Yugoslav farmers are caught up in civil unrest reflecting long-standing ethnic and national rivalries; Albania is overcoming 40 years of isolation; Romanian farmers are attempting to rebuild the country's self-sufficiency in agriculture after the damaging policies of the Ceausescu regime; and Bulgaria is forging ahead with agricultural reforms de-



spite slow progress in returning land to private ownership.

Events in these countries will eventually play a role in shaping global agricultural markets. Closer to home, implications of U.S. relations with Mexico are explored in a new five-part *AO* series.

At times the U.S. and Mexico appeared to have little in common besides their border, yet the economic interdependence of the two countries has a long history. Today, dissimilarities are bringing opportunities for greater integration in the areas of trade, the environment, and migration.

This month, the first installment provides a general overview of current and past economic relations. Parts II through V (beginning in March) take a closer look at agricultural relations, emphasizing trade, labor and investment, environmental issues, and a pending North American Free Trade Agreement.

Events in the Soviet Union continue to cloud the outlook for global grain trade. USDA puts the 1991/92 Soviet grain har-

vest at 175 million tons, down sharply from last season's 235 million. The lower production is raising demand for Soviet grain imports, as well as for credit to make purchases. On November 20, President Bush announced a new U.S. aid and credit package for the Soviets.

In spite of increased import demand from the Soviet Union, intense competition continues in several global commodity markets—notably wheat. The U.S. has countered price subsidies in global markets with the Export Enhancement Program (EEP), a targeted subsidy for U.S. exporters.

In fiscal 1991, USDA awarded over \$900 million to exporters in generic EEP certificates redeemable for government-held commodities. However, with current government inventories at low levels, USDA announced that as of November 7, bonuses will be awarded in cash rather than redeemable certificates.

Although wheat has been the chief EEP commodity, accounting for over 80 percent of fiscal 1991 bonuses, vegetable oil exports have also been assisted by the EEP and by other programs. Ironically, although the U.S. produces nearly 40 percent of the world's soybean oil, consuming on average 35 percent, the U.S. became a net importer of vegetable oil in 1990. *AO* traces this anomaly to developments in foreign markets and changing objectives of U.S. export programs.

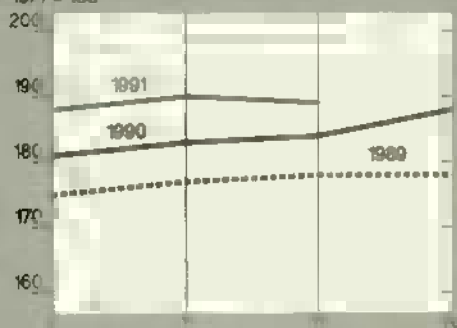
**Will Farmer Mac get off the ground?** The Federal Agricultural Mortgage Corporation was authorized by Congress in 1987 to expand availability of long-term farm real estate credit at fixed rates to farmers. But expectations for Farmer Mac's secondary loan market are withering, due to economic and structural factors including weak demand for fixed-rate financing offered by Farmer Mac. Legislation is pending to make structural adjustments to the program and overcome some of the problems in launching a successful secondary market.

## Commodity Overview

## Prime Indicators

Index of prices paid by farmers

1977 = 100

Index of prices received by farmers<sup>1</sup>

1977 = 100

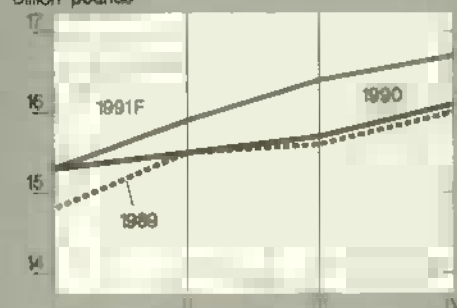


Ratio of prices received/prices paid

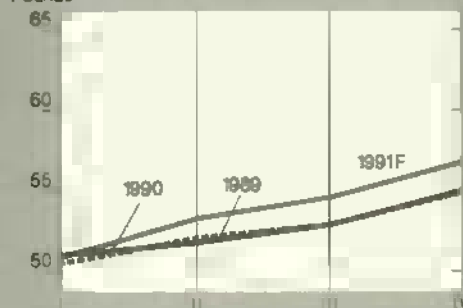
Percent

Total red meat & poultry production<sup>2</sup>

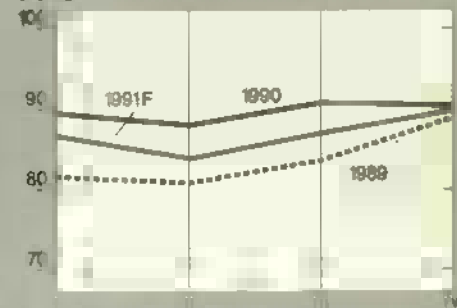
Billion pounds

Red meat & poultry consumption, per capita<sup>2,3</sup>

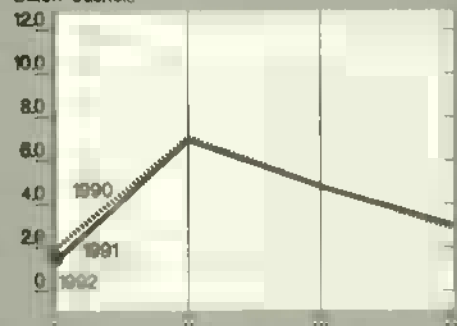
Pounds

Cash receipts from livestock & products<sup>4</sup>

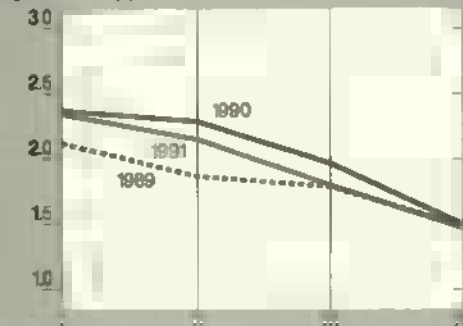
\$ billion

Corn beginning stocks<sup>5</sup>

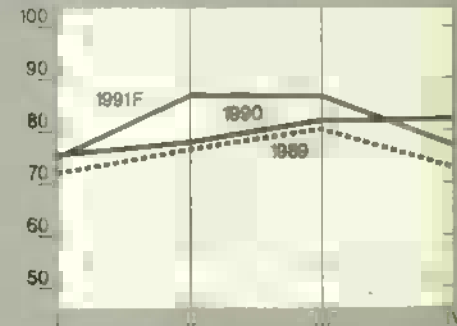
Billion bushels

Corn disappearance<sup>5</sup>

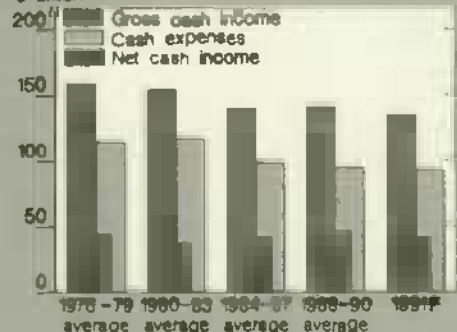
Billion bushels

Cash receipts from crops<sup>4</sup>

\$ billion

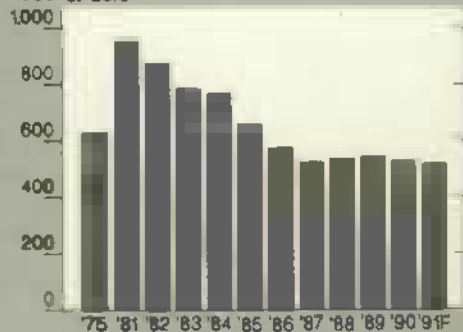
Real cash income<sup>6</sup>

\$ billion



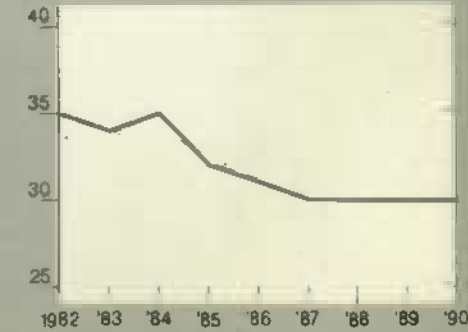
Average real value of farm real estate

1982 \$/acre



Farm value/retail food costs

Percent

<sup>1</sup>For all farm products. <sup>2</sup>Calendar Quarters. Future quarters are forecasts for livestock, corn, and cash receipts.<sup>3</sup>Sept.-Nov.; II=Dec.-Feb.; III=Mar.-May; IV=June-Aug. Marketing years ending with year indicated.<sup>4</sup>Cash receipts less net cash income divided by gross cash income. F=forecast.<sup>5</sup>Retail weight. <sup>6</sup>Seasonally adjusted annual rate.





## Field Crops Overview

World coarse grain production is expected down 4 percent in 1991/92, with a 5-percent decline in the U.S. Despite the drop in U.S. production, exports of corn in 1991/92 started off strong due to exports of 88 million bushels to the USSR during September and October, compared with none to that destination a year ago. But export inspections to other countries in September and October were down over 7 percent.

Because of expectations for increased exports by China and reduced imports by Mexico, the 1991/92 U.S. corn export forecast as of mid-November was reduced to 1.58 billion bushels. This is 4.5 percent below last month's forecast and almost 9 percent below last year's estimated exports.

Global soybean output is projected up only 2 percent in 1991/92. The large expected rebound in Brazil from last season's poor crop accounts for much of the increase. The U.S. crop should encounter healthy demand, with soybean exports forecast 17 percent higher and domestic soybean meal use poised to set another record.

World wheat production in 1991/92 is forecast down sharply, with the Soviet Union and the U.S. accounting for most of the drop. U.S. exports are forecast to increase, although market share will decline with strong competition from large supplies in the EC, Canada, and smaller exporters. [For the latest U.S. crop conditions and outlook, see tables 17-19. The world outlook estimates are in table 23.]

### Global Coarse Grains— Output, Consumption Down

Global coarse grain production in 1991/92 is projected to drop 4 percent to 802 million tons. Although production is forecast up in the EC, Eastern Europe, and Brazil, most other major producers expect declines. Global production of each of the major coarse grains—corn, sorghum, and barley—is forecast down.

Planting is underway in the Southern Hemisphere. In Argentina, farmers are expected to increase coarse grain area in response to an improved economic climate and expectations of better prices. However, corn production there is forecast down 8 percent, at 7.2 million tons, because yields are likely to retreat from last year's record. Sorghum production is also expected to drop slightly for similar reasons.

The recent elimination of export taxes, and the government's steps to privatize transportation and port facilities, should improve Argentina's competitiveness. Despite the prospective drop in production, Argentina is expected to increase corn exports by 14 percent to 4.2 million and sorghum by 23 percent to 1.6 million, because of large carryin stocks.

With production up in several key trading countries, global import demand is forecast down. Larger output is reducing importers' demand in the EC, Eastern Europe, and Mexico. World imports are projected at 83.2 million tons, off 2 percent. In addition, high production in China, a major exporter, and the expected increase in Argentine exports, are raising export competition.

At 46.9 million tons, U.S. exports and market share are also projected to drop somewhat from last year. But despite the slight decline, the U.S. retains more than half the market, at 56 percent.

### U.S. Corn Exports Decline

U.S. feed grain production in 1991/92 is forecast at 218.5 million metric tons, up marginally from last month's projection, but down over 5 percent from 1990/91. Much of this year's production decline can be traced to dry weather in the Eastern Corn Belt in June and early July, which reduced corn yields.

The forecast decline in 1991/92 corn output contrasts with the situation for sorghum and barley. November's corn production forecast—at just under 7.5 billion bushels—is down 6 percent from last year, while sorghum is up 1 percent from 1990/91's estimated crop, and barley is up almost 10 percent.

Harvest of domestic feed grains proceeded well ahead of schedule this fall. As of November 10, corn harvest in the 17 major producing states was 96 percent complete, 8 percentage points ahead of the 5-year average. Sorghum harvest was 95 percent complete, also about 8 points ahead of the 5-year average. This is the final date for feed grain crop progress reports this season.

Domestic feed grain use for 1991/92 will be supported by larger inventories of livestock in coming months and into 1992. The feed and residual component of feed grain use for 1991/92 is projected at 140 million metric tons, up marginally from last year, while wheat feeding is down and a record hay harvest is expected.

Exports of U.S. corn in 1991/92 started off strong due to exports of 88 million bushels to the USSR during September and October, compared with none to that destination a year ago. But export inspections to other countries were down over 7 percent during September and October compared with a year earlier.

Because of expectations for increased exports by China and reduced imports by

## Commodity Overview

Mexico, the 1991/92 U.S. corn export forecast as of mid-November was reduced to 1.58 billion bushels. This is over 4.5 percent below last month's forecast and about 9 percent below last year.

The weaker outlook for corn exports leads to a higher 1991/92 carryout than forecast last month. However, corn ending stocks in 1991/92, forecast at 1.28 billion bushels, are still at their lowest since 1983/84. Farm prices are forecast in the range of \$2.15 to \$2.55 per bushel.

### ***Brazil's Soybean Crop Boosts Global Output***

Global soybean output is projected up only 2 percent in 1991/92. The large rebound expected in Brazil from last season's poor crop accounts for much of the increase. Planting reports from Brazil suggest sufficient area to reach production of 17.5 million tons projected for 1991/92.

Although production in Argentina, the other major foreign producer, is projected to drop fractionally, new crop planting progress supports earlier expectations and estimated output remains at 10.75 million tons for 1991/92. However, the recent elimination of government price controls on grains and meats and elimination of statistical export taxes for all agricultural commodities may affect late plantings, with slight changes in the relative mix of crops.

Elimination of Argentina's statistical export taxes would normally encourage exports, but the smaller crop anticipated in 1991/92, along with reduced October-March inventories, is projected to shrink October-September soybean exports to 3.3 million tons from last year's 4.4 million. Global soybean exports, however, will rise, because U.S. exports are anticipated to advance sharply from 15.2 to 17.7 million tons, and a slight increase is expected for Brazil.

Projected world exports of soybean meal, on the other hand, are virtually unchanged. Although U.S. soybean exports are expected to rise 15.3 percent above the previous year, soybean exports

### **Soviet Aid & Credit Guarantees Announced November 20**

On November 20, President Bush announced that an additional \$1.25 billion in credit guarantees will be made available for the Soviet Union under the Commodity Credit Corporation's GSM-102 export credit program.

As in September and October, the guarantees will cover all principal, as well as interest up to the prevailing 52-week Treasury bill rate. Of the total \$1.25 billion, \$500 million is available immediately, to be allocated for feed grains, wheat, and soybeans and soymeal. Additional amounts of \$250 million each will become available on the first of February, March, and April 1992.

The commodities purchased under the program will help provide a steady flow of food to the Soviet Union during this winter, and alleviate concerns arising from the much lower grain procurements. Based on harvest progress reports, USDA puts the Soviet grain crop estimate at 175 million tons, bunker weight, a sharp 26 percent below last season's 235 million. (Bunker weight includes excess moisture, while clean weight does not.)

More importantly, by the end of October, Soviet government procurements for urban and nonagricultural areas had reached only 39.1 million tons, 57 percent of last season's total. Very little procurement activity has occurred since that time, and the lower procurements have raised demand for Soviet grain imports. However, because of this year's financial, economic, and political crises, Soviet imports appeared unlikely without financial assistance from Western countries and other forms of import arrangements.

The President also announced that \$165 million in humanitarian food aid and some additional technical assistance would be provided to the Soviet Union. The technical assistance activities are designed to improve Soviet food production and distribution, and include plans for a demonstration farm operated by an American farm family. The food aid is targeted to vulnerable groups in the regions of Armenia and the Urals in the Russian republic—two areas expected to be hard hit by shortages in food supplies this winter.

from both Brazil and Argentina will drop slightly.

### ***Healthy Demand for U.S. Soybeans & Products***

As of November 17, the U.S. soybean harvest was virtually finished. Harvest in the 19 major producing states was 95 percent complete, 3 percentage points ahead of the 5-year average for that date. Due to favorable fall weather, the November production estimate—at 1.96 billion bushels—is 1.4 percent above October's forecast, and represents about a 2-percent increase over last year's production. If realized, November's production forecast will be the fifth-highest on record.

November's upward revision in production over October's forecast is entirely due to better-than-expected yields. Yields are now pegged at 33.5 bushels per acre, half a bushel above the forecast on October 1, but half a bushel below 1990/91. Record pod counts are being reported in some areas in the upper Midwest.

The larger-than-expected U.S. soybean crop should encounter healthy demand. Exports in 1991/92 are forecast at 650 million bushels, 17 percent above last year. The rise comes mainly at the expense of Brazil, where a drought-stricken 1990/91 crop makes soybean imports by that country necessary. U.S. domestic crush is forecast at 1.2 billion bushels, with domestic soybean meal use poised

to set another record in 1991/92, at 23.3 million tons.

The stronger outlook for soybean use is expected to lower 1991/92 carryout stocks to 315 million bushels, slightly below last year's level. Season-average prices for soybeans are forecast in the range of \$5 to \$6 a bushel, close to 1990/91's average of \$5.75 a bushel.

### **World Wheat Output Lower, Competition Sharp**

World wheat production in 1991/92 is forecast down sharply from the high levels of 1990/91, but remains the second-largest historically. Forecast production declines in the Soviet Union and the U.S. account for most of the drop, but production in Australia and Argentina are also projected down 34 and 14 percent. While Canada and the EC produced record crops and their stocks are projected to build, stocks in the rest of the world are forecast down, tightening supplies and contributing to the expected rise in prices.

World trade is forecast at 104 million tons, 12 percent above 1990/91. Export prices (HRW No. 2, f.o.b. gulf) rose 25 percent between July and November, fueled by increased imports by the Soviet Union, China, and others.

U.S. exports are projected at 30.5 million tons, up 8 percent from 1990/91. But U.S. market share is forecast to drop with sharp competition from the EC, Canada, and several smaller exporting countries.

### **Lack of Moisture Hurts Winter Wheat**

Although 6 months remain in the 1991/92 U.S. wheat marketing year, the 1992/93 winter wheat crop has been receiving much of the attention. As of November 3, 91 percent of this crop had been seeded, compared with a 5-year average of 90 percent. However, dryness delayed germination and caused uneven emergence. As of November 17, 83 percent of the crop had emerged, 6 percentage points behind the 5-year average.

During September and October, parts of Kansas—which produced over one-fourth of the U.S. winter wheat crop in 1991/92—recorded no measurable precipitation for over 40 days. Significant moisture began arriving on October 27, but largely as snow, accompanied by bitter cold.

Although temperatures have moderated, crop conditions as of November 17 were much worse than normal and indicate that the crop is poorly established in many areas. On that date, 49 percent of the Kansas crop was rated poor or very poor. Overall, 17 percent of the winter wheat crop nationally fell in the poor or very poor range, while only 4 percent was rated excellent.

Since wheat in the Southern Plains is often grazed in the fall if emergence is good, the immediate effect of these conditions is to curtail grazing. In addition, a weak crop is more susceptible to adverse conditions.

The current 1991/92 crop, which was harvested this past spring and summer, is estimated at 1.98 billion bushels, down 28 percent from last year. With total use down only 3 percent, ending stocks in

1991/92 are forecast at 514 million bushels, the lowest since 1974/75.

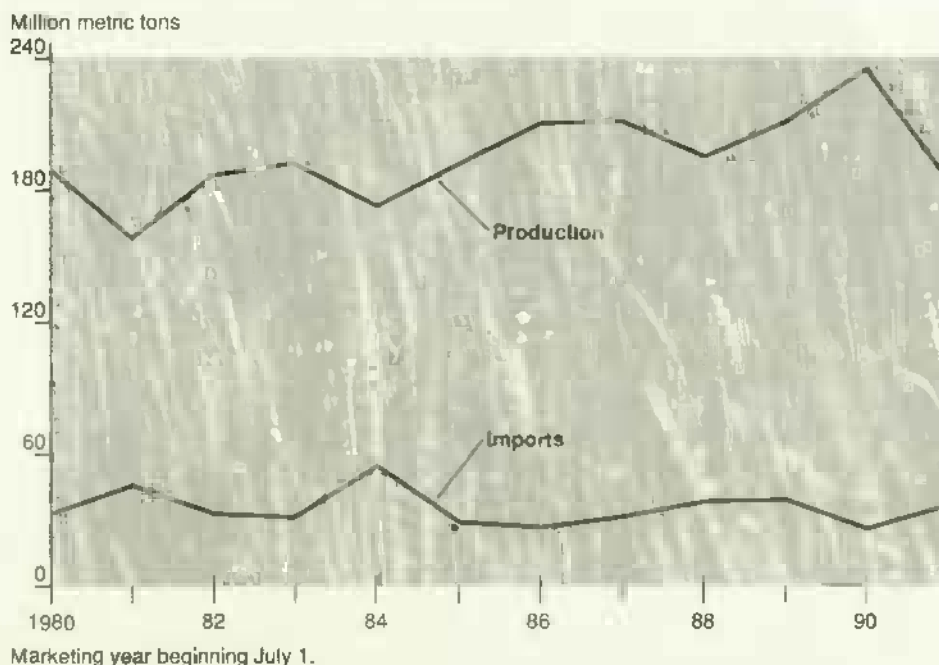
As a result, the potential size of the 1992/93 crop, as well as export prospects, will have an important effect on prices for the remainder of 1991/92. Price projections for 1991/92 are currently in the range of \$2.75-\$2.95, well above 1990/91's \$2.61.

### **Global Rice Trade Forecast Up**

World rice production is projected down 3 percent, with China and India accounting for most of the decline. Adverse weather in Southeast Asia, notably a serious drought in Indonesia, has affected output. The Indonesian government is expected to import 450,000 tons of rice in calendar 1992, the most since 1983, to maintain stocks and to curb domestic price increases.

World trade in calendar 1992 is forecast at 12.9 million tons, up 4 percent from 1991. Larger imports are expected in Iran and Iraq as well as in Indonesia. Despite larger exports forecast for

**Soviet Grain Imports Offset Production Shortfalls**

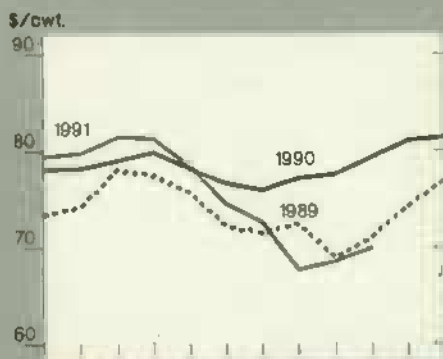




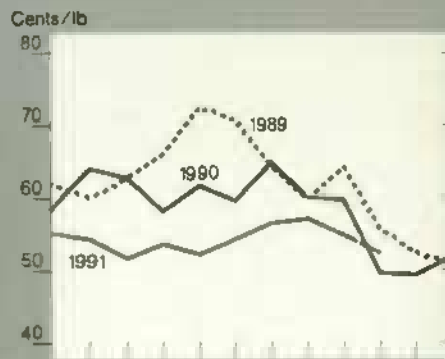
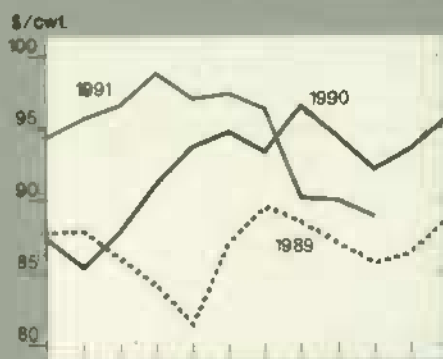
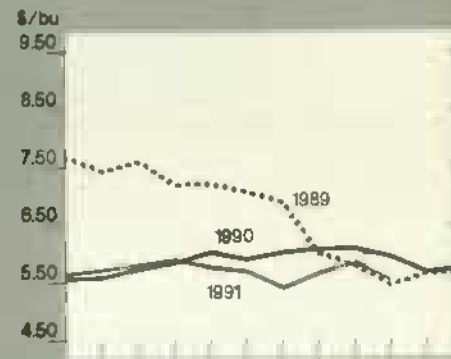
## Commodity Overview

## Commodity Market Prices

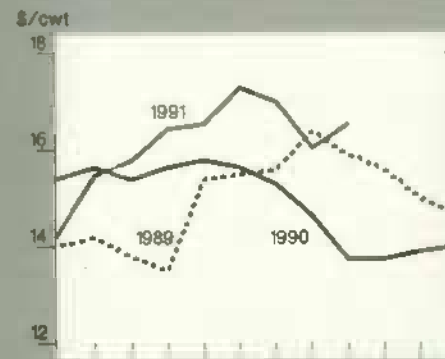
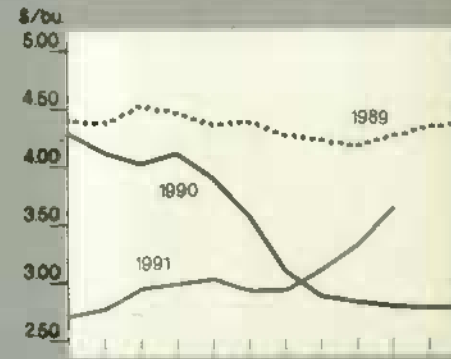
Choice steers, Nebraska



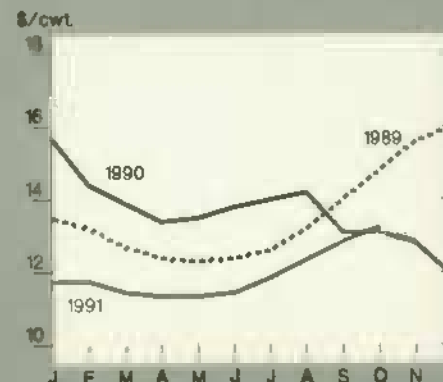
Broilers, 12-city average

Corn, Central Illinois<sup>1</sup>Medium steers, Oklahoma City<sup>2</sup>Eggs, New York<sup>3</sup>Soybeans, Central Illinois<sup>4</sup>

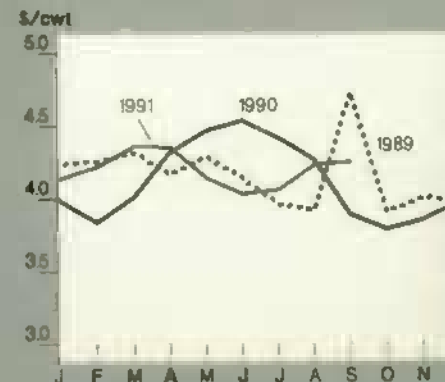
Barrows and gilts, 7 markets, Omaha

Milled rice, SW Louisiana<sup>5</sup>Wheat, Kansas City<sup>6</sup>

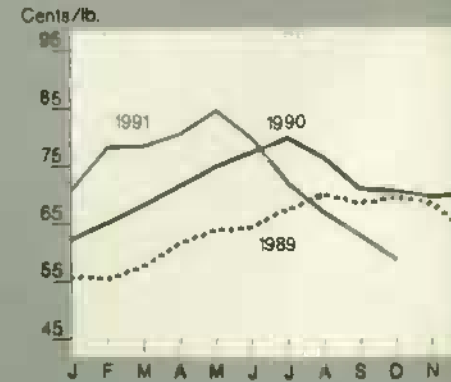
All milk



Sorghum, Kansas City



Cotton, average spot market

<sup>1</sup>No. 2 yellow. <sup>2</sup>600-700 lbs. medium no. 2. <sup>3</sup>Grade A large. <sup>4</sup>No. 1 yellow. <sup>5</sup>U.S. No. 2, long-grain.<sup>6</sup>No. 1 HRW.



Thailand, and prospects of relatively low competitor export prices, U.S. exports are projected at 2.3 million tons, up 5 percent from 1991. Market share is also expected to rise slightly.

U.S. rice production in 1991/92 is forecast up nearly 3 percent from a year earlier to 159 million cwt, due to projected increases in harvested acreage and yields. Output of long grain rice is forecast up 5 percent, while combined medium and short grain output is expected to fall 2 percent.

Virtually the entire California crop was harvested during October, under excellent weather conditions, while Texas and southern Louisiana producers were harvesting second crops (ratoons). Second-crop yields have been higher than normal. Record-high yields are forecast for California and Louisiana.

Domestic use of rice continues to grow, and is projected to increase 3 percent in 1991/92. Food use for 1991/92 is forecast up 5 percent. Brewers' use, at about 18 percent of total domestic use, is also projected up slightly. This increase in domestic use is expected to offset a drop in marketing year exports, leading to a marginal increase in total rice disappearance.

Ending stocks, forecast at 26 million cwt, are up 5 percent from a year ago, largely due to the forecast output gain. However, rice stocks still remain tight relative to use. This would be the fourth consecutive year that the stocks-to-use ratio is below 17 percent.

The relatively tight U.S. stocks-to-use ratio and strong domestic demand are bolstering U.S. prices. U.S. rice prices are projected to range between \$6.75 and \$7.75 per cwt in 1991/92, compared with \$6.60-\$6.80 for 1990/91.

## World Cotton Production at Record

World cotton production in 1991/92 is forecast at 91.6 million bales, 5 percent above last season and a record outturn. The larger prospective crop this season reflects a 3-percent increase in world cotton area and favorable harvest conditions among most Northern Hemisphere producers. Among the leading foreign cotton producing countries, outturn in 1991/92 is projected up 1.3 million bales in China, nearly 900,000 in India, and about 300,000 in Pakistan. However, Soviet production is expected to fall by 1 million bales.

Consumption is forecast at a record 88 million bales, up 2 million from 1990/91, while trade is projected slightly larger, up a half million to 23.9 million bales. Even with anticipated gains in consumption and trade, yearend world stocks are expected to rise nearly 13 percent from the low levels of the last two seasons because of higher production.

Reflecting expectations for a much larger world crop and increasing stocks, world cotton prices have declined steadily so far this season. As measured by the A-index on the Northern Europe market, world prices averaged 67.8 cents per pound in October, compared with 81.6 cents for the same month last year.

## U.S. Cotton Mill Use Largest Since 1966/67

U.S. cotton production is forecast at 18.2 million bales in 1991/92, 17.5 percent above a year earlier and the largest crop since 1937. This estimate is up moderately from October's forecast due to ideal weather in the Delta and Southeast.

Harvested area is projected at nearly 13.5 million acres, the largest since 1981, primarily due to the low 5-percent ARP. Yield per harvested acre is estimated at 649 pounds, 19 pounds above last month's forecast and 15 pounds above last year's yield.

Beneficial weather in October resulted in rapid crop development in many areas. As of November 17, 46 percent of the Texas crop was harvested, 4 percentage points above the 5-year average. Overall, 71 percent of the crop was harvested, 3 percentage points above the average.

Domestic cotton mill use is expected to reach 9.1 million bales in 1991/92, the largest since 1966/67. This strong showing is primarily the result of high U.S. denim usage, larger exports of textiles made with U.S. cotton, and the replenishment of depleted textile inventories.

U.S. cotton exports are forecast at 7.2 million bales, down from last season because of increased foreign competition. At 30 percent, the U.S. market share is expected to remain slightly above average, though smaller than 1990/91.

U.S. cotton stocks are expected to be replenished by this season's large production. Ending stocks in 1991/92 are forecast to reach 4.4 million bales, sharply above last month's forecast, and nearly double the beginning stocks level.

With production exceeding use, prices have declined sharply. Mid-November spot market prices of 55 cents per pound were 15 cents below a year ago and the lowest in 2 1/2 years. [Joy Harwood (202) 219-0840 and Carolyn Whitton (202) 219-0824]

For further information, contact: Sara Schwartz, world food grains; Edward Allen, domestic wheat; Janet Livezey, domestic rice; Pete Riley, world feed grains; Tom Tice and Jim Cole, domestic feed grains; Nancy Morgan, world oilseeds; Roger Hoskin, domestic oilseeds; Scott Sanford, world cotton; Bob Skinner and Les Meyer, domestic cotton. World information (202) 219-0820; domestic (202) 219-0840. **AO**

## Commodity Overview

## Livestock, Dairy & Poultry Overview

*The turkey industry enters the fourth quarter not only with record supplies, but also facing large supplies of competing meats. Consumers should see some attractive retail turkey specials for the holidays as retailers try to move the record supplies.*

*Indications are strong that retail prices for many pork products, especially hams, will also be priced attractively this holiday season. Retail prices for hams in October were 12 percent lower than a year ago.*

*Recent performance in the cattle feeding industry has been shaped by two factors. High feeder and stocker cattle prices have left little incentive for feedlots to place lightweight cattle, and changing feeding practices have allowed cattle feeders to market cattle at heavier weights without price discounts. [For the latest estimates on the livestock, dairy, and poultry markets, see tables 10-16.]*

### Turkey Stocks at Record, Prices Down

As the turkey industry enters the fourth quarter, attempts to reduce record stocks mean consumers should see attractive retail turkey specials for the yearend holidays.

If turkey producers are unable to reduce the large stocks in the fourth quarter, the outlook for favorable growth and returns in 1992 will dim. Lower fourth-quarter prices are expected to push returns below breakeven. Continuing lower turkey prices and steady feed costs expected in 1992 will also lower expectations for improved returns next year. Currently, the outlook is for 1992 to be another modest production-growth year—2 to 3 percent.

Turkey production in the third quarter was about 2 percent above a year earlier,

and is estimated to be little changed in the fourth quarter following generally weak prices and record stock levels. Production for the year overall is expected to rise 2-3 percent, an unusually small increase for the turkey industry.

Turkey stocks continued to rise in the third quarter from already record levels, to 655 million pounds on October 1, about 5 percent above last year. Wholesale turkey prices fell in early October, and Eastern region hens are estimated at 57-59 cents per pound for the fourth quarter, compared with 68.6 cents last year. This will be the lowest fourth-quarter average since 1981's 55 cents. For 1991 overall, Eastern region hen prices are expected to average around 60 cents, the lowest since 1987.

Despite increases in the first half of 1991, per capita consumption was flat in the third quarter compared with a year earlier. Lower relative prices of competing meats have likely slowed growth in turkey consumption. Price declines may help stem the slowdown in consumption and the buildup of record stocks.

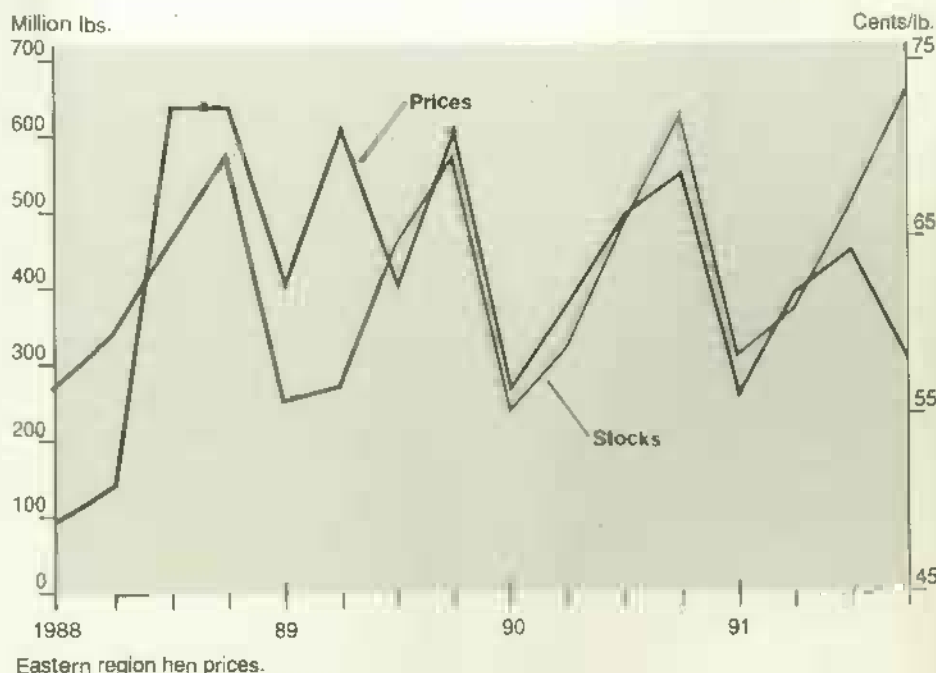
### Broiler Exports A Record in 1991

Prospects have become brighter for U.S. broiler exports, at least in the near term. Although the growth in exports this year will not be as strong as in 1990, exports are expected to increase about 1 percent from a year earlier, reaching a new record at approximately 1.15 billion pounds.

Broiler producers are placing greater emphasis on export markets, especially as domestic broiler production continues to expand and red meat supplies abound. Boosted by a recent sale to the USSR, fourth-quarter exports are likely to reach about the same level as last year, around 300 million pounds. Broiler exports through August were up 18 percent from a year earlier, excluding purchases made by the USSR. Japan and Hong Kong are 1991's largest buyers, accounting for about 22 and 19 percent of total exports through August.

Sales to Mexico, the Middle East, and to some smaller markets also continue stronger. Mexico's purchases through August increased about 56 percent from

Turkey Stocks Hit Record High, Prices Sag



## Commodity Overview

a year ago, due to population growth and increased incomes. Entry of agricultural commodities into Mexico has become less restricted, and U.S. dark broiler meat parts remain competitively priced.

Sales to the Middle East are mainly whole birds under the Export Enhancement Program (EEP), although some shipments of broiler parts not under EEP are also included. EEP sales are expected to represent about 4-5 percent of broiler exports in 1991.

Sales to the Soviets through most of 1991 are below last year, reflecting their strong dependency on export credit guarantees. U.S. broiler sales to the USSR have been and will continue to be nearly all low-priced leg quarters. Export credit guarantees of \$15 million in early October, allocated for poultry, should lead to a fall shipment of about 40 million pounds of broiler meat to the USSR. In the absence of any further substantial purchases during the fourth quarter, U.S. exports to the USSR will likely reach about 165 million pounds in 1991, slightly over half the Soviets' purchases last year.

Broiler exports for next year will likely be another record, with much of the continuing demand from traditional markets such as Hong Kong, Japan, and Mexico. The USSR market will probably remain the most uncertain, and its import decisions could generate large fluctuations in U.S. exports.

Broiler supplies remain abundant in fourth-quarter 1991, but are increasing at a slower rate than last year. Chick placements in August through October indicate that fourth-quarter production will be up about 4 percent from a year ago, compared with the 8-percent growth last year.

Annual production is expected to increase over 6 percent from a year ago to about 19.8 billion pounds, slightly below the 7-percent growth last year. The slowdown in growth reflects producer adjustments to lower prices and net returns through most of 1991. Fourth-quarter net returns are expected to average 1-2 cents below last year.

Wholesale broiler prices have been helped by slower production growth and strong exports. October broiler prices moved nearly 3 cents a pound above a year ago for the first time in 8 months, averaging nearly 52 cents. However, broiler prices this fall are under new pressure from ample supplies of competing meats, particularly during the holidays, when pork and turkey are in the spotlight and both are priced lower than a year ago.

Fourth-quarter broiler prices will likely decline seasonally from 54 cents a pound during the third quarter to the high 40's, little changed from a year earlier. Retail prices for whole broilers this fall remained in the mid- to high 80's, 1-2 cents below a year ago.

Generally lower broiler prices and lower net returns this year will likely continue the slowdown in production growth for 1992. Production is expected to increase around 4 percent, about 2 percentage points below this year's advance. Increased total meat supplies and continued lower red meat prices will likely keep the pressure on broiler prices during 1992. For the year, wholesale broiler prices will likely average 46-52 cents a pound, and retail prices for whole broilers 87-89 cents, slightly lower than this year.

Profitability in 1992 will be hurt by lower broiler prices and feed costs that are about steady with 1991. Net returns in 1992 will likely decline 2-3 cents a pound from 1991. Average net returns during the first quarter will likely be off a few cents from first-quarter 1991, given a 4-5-percent decline in broiler prices.

### ***Egg Output Up Slightly, Prices Lower***

Second-half 1991 egg production will be slightly above 1990, reflecting a table-egg flock that has been larger than a year ago every month since June. The rate of expansion is slowing, however, as producers become more cautious due to lower, but still positive, net returns.

Table-egg production increased 1 percent during the third quarter, but lower net returns should keep fourth-quarter production only fractionally above year-earlier levels. Total egg production for the year will likely increase about 1 percent to 5.7 billion dozen, reflecting about a 4-percent growth in hatching-egg production.

Slightly increased egg supplies during the third quarter pushed egg prices below a year earlier. Holiday baking will boost the demand for eggs this fall and help stabilize egg prices during the fourth quarter, but prices are expected to average 11-12 cents below a year earlier.

Fourth-quarter retail prices for Grade A large eggs are expected in the high 90's per dozen, compared with \$1.01 last year. Per capita egg consumption for 1991 is estimated at about 232 eggs, approximately 2-3 less than last year.

Table-egg production for 1992 is expected to be about unchanged to slightly above 1991, as producers adjust to lower prices. Average net returns to egg producers are expected to be 2-3 cents below the estimated 11-12 cents a dozen for 1991. Retail egg prices are expected in the low 90's, a few cents below this year.

Egg exports in 1992 are expected to be unchanged from this year, with EEP sales continuing to play an important role. Also, expected lower U.S. prices will help maintain the competitive position of the U.S. in foreign markets, particularly Japan and Canada.

### ***Cattle Weights Heavier, Fed Cattle Prices High***

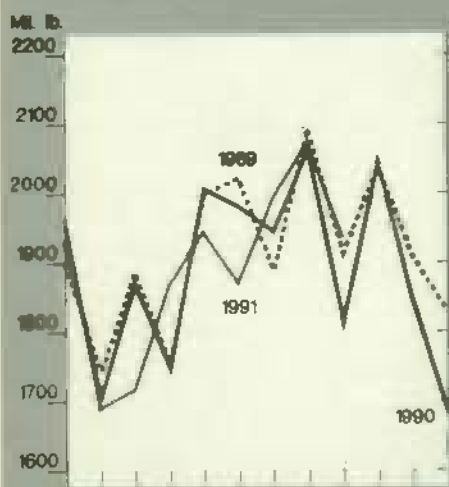
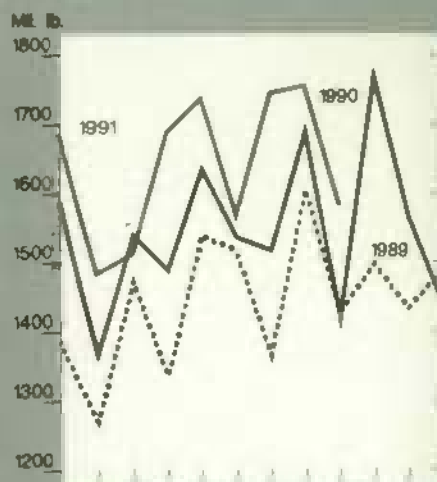
Since July, performance in the cattle feeding industry has been shaped by two major factors. Plentiful forage and relatively small cattle numbers have resulted in high feeder and stocker cattle prices, leaving little incentive for feedlots to place lightweight cattle. On the other hand, present feeding practices and genetics have allowed cattle feeders to market fed cattle at heavier weights without price discounts.



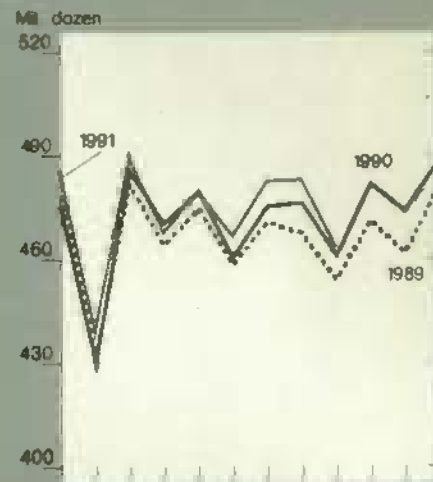
## Commodity Overview

## Livestock &amp; Product Output

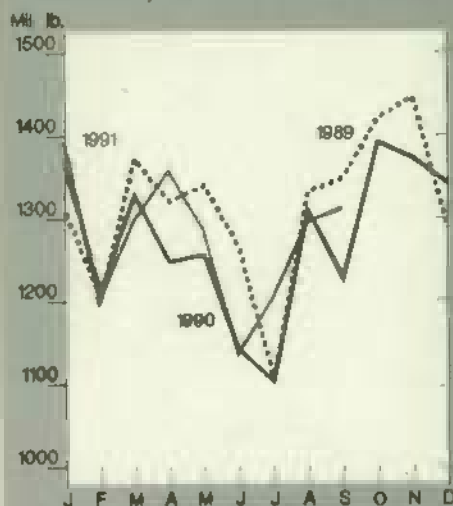
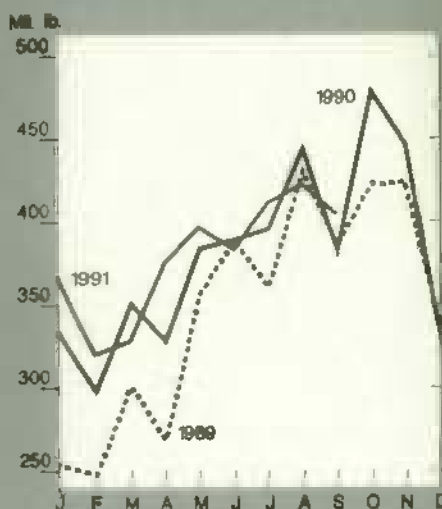
Commercial beef

Broilers<sup>1</sup>

Eggs



Commercial pork

Turkeys<sup>1</sup>

Milk



<sup>1</sup>Federally inspected production, ready-to-cook.

Favorable forage available from pastures and ranges, hay, and other sources allowed more cattle to be kept on forage longer than in recent years. Feedlot operators are unable to bid stocker and feeder cattle away from forage-based rations, which usually involve lower costs of adding weight to cattle.

This was evident in the October 1 *Cattle on Feed* report for 13 states, showing the lowest number of cattle placed on feed during the third quarter since 1981, at 5.4 million head, and 15 percent below the same period last year. The greatest annual reduction was in the under-500-pound steers and heifers on feed; these were 40 and 50 percent below placement

levels a year ago, respectively. Most of the cattle placed on feed during the summer quarter were heavier weight feeders.

Based on the seven-state *Cattle on Feed* report of November 1, the slower placement pace continued in October, with large feeding losses and good forage conditions in most areas. Placements during October were 10 percent below a year ago. Lower placements, combined with a 1-percent rise in marketings, resulted in a November 1 cattle-on-feed inventory down 9 percent from a year ago.

Feedlot operators have an incentive to add extra pounds to fed cattle before marketing them. The cost of weight gain

in feedlots is in the low \$50's per cwt, and fed cattle prices are in the upper \$60's to low \$70's per cwt. Federally inspected steer carcass weights averaged 781 pounds in September, 20 pounds heavier than a year earlier and 58 pounds above the 1980-89 average.

But even with record weights, packers are not significantly discounting prices to discourage heavyweight cattle, particularly since the proportion of cattle being graded as Choice is well below the normal 70-80 percent. This suggests that present feeding practices are not resulting in overfinished fed cattle.



Unless the economic signals change, feedlot operators are not expected to increase placements on feed sharply nor to market fed cattle at lighter weights. A decline in feeder and stocker cattle prices, higher fed cattle price expectations, or lower cost of gain in feedlots could change feedlot operator behavior—boosting placements or marketing lower weight cattle.

Retail Choice beef prices averaged \$2.80 per pound during September, declining over 5 cents from a month earlier. The farm-retail price spread for September was \$1.33 per pound, off 7 cents from August, as retail prices declined and live steer prices firmed.

Retail Choice beef prices are expected to stabilize in the \$2.80-to-\$2.85 range this fall, with further advances expected for steer prices. Ample supplies of substitute meats will blunt the price rise potential for Choice beef.

### ***Ample Pork Supplies Expected To Continue***

Likely hog slaughter increases in December should put fourth-quarter production 7 percent higher than a year ago. Monthly hog slaughter normally follows a seasonal trend, increasing from July through October, tapering off in November.

Price declines since August have been mainly responsible for the narrowing of hog producers' returns. After stabilizing in September, hog prices in October resumed the slide which started with August's sharp price break. Since early August, weekly hog prices have fallen over \$17 per cwt. Hog prices at the start of November were around \$38 per cwt, a full 30 percent lower than a year ago. Throughout November, hog prices have remained in the high \$30's per cwt, but occasionally dropped to the mid-\$30's. Some price strength is expected in December, but not to the same degree as past years.

Hog price declines for producers are translating into lower wholesale and retail prices. Producer prices dropped 30 percent from a year ago, and wholesale and retail composite values have dropped 16 and 7 percent. In the coming months, margins should narrow, with wholesale and retail prices more fully matching producer price declines.

As margins narrow, many pork products, especially hams, will be priced attractively for consumers through the holiday season. Retail prices for hams in October, for example, were 12 percent lower than a year ago. However, more moderate price declines in other pork products helped offset the large price cut for hams.

### ***Little Expansion In 1992 Milk Production***

Milk production in 1992 is projected to remain close to this year's 149 billion pounds. Returns will not be strong enough to move output significantly, and production probably will begin the year without much upward momentum.

Dairy farmers will enter 1992 with financial conditions similar to a year earlier. Debt-asset ratios probably will be low, but income prospects will not be particularly bright because only slight increases are expected in milk prices. Consequently, expansion plans are likely to be conservative, even though a fairly large number of farms could take on some new debt, given their debt-asset position.

The relatively low returns expected in the first half of 1992 probably will result in dairy farmers exiting the industry. However, the exit rate is not expected to be as large as during early 1991, when low prices following 2 years of high prices precipitated substantial exit. In addition, slaughter cow prices will not be as high as a year earlier, making it less attractive for dairy farmers to sell their less productive stock and exit the industry.

Growth in milk per cow is expected to be below trend during most of 1992. Milk-feed price ratios probably will not sustain normal increases in concentrate feeding, and the quality of 1991's forage was uncertain in many areas.

The staff of  
***Agricultural Outlook***  
extends best wishes  
to our readers for the  
**HOLIDAY SEASON**  
and the **NEW YEAR.**



For further information, contact: Richard Stillman, coordinator; John Ginzel, cattle; Felix Spinelli, hogs; Lee Christensen, Agnes Perez, and Larry Witucki, poultry; Jim Miller and Sara Short, dairy. All are at (202) 219-1285. **AO**

## Commodity Overview

## Specialty Crops Overview

*Severe insect damage to winter fresh broccoli, cauliflower, and lettuce in California and Arizona will cut supplies of those crops and boost consumer prices during December and January.*

*U.S. fall potato production is forecast up 5 percent from a year ago. A large fall crop will dampen grower prices for the remainder of the 1991/92 marketing year, and consumer prices are also likely to decline through the first half of 1992.*

*Despite higher U.S. apple production in 1991, consumer prices should remain strong during the first 8 months of 1992. Strong export demand and a smaller crop in the West, the major supplier of apples from storage, will push retail prices above year-earlier levels.*

*Tight supplies of flue-cured and burley tobacco are boosting grower prices for 1991 crop tobacco. (For the latest specialty crop conditions, see tables 20-22.)*

### Whitefly Wreaks Havoc On Winter Vegetables

A severe whitefly infestation in the California and Arizona desert agricultural areas, combined with unusually hot weather during September and October, will reduce winter production of broccoli, cauliflower, and lettuce. Yields are expected 25 to 50 percent below normal, and insect damage could also adversely affect quality. Industry sources report the fall melon crop 85 to 95 percent lower than anticipated.

The drop in production began to affect prices in late November, when the desert areas began to supply substantial shares of cool-season crops. Higher prices are expected at least through January.

The last major whitefly infestation occurred in 1987/88, causing retail lettuce prices to average \$1.25 a pound in December and January—more than double “normal” levels. Industry sources are anticipating a repeat of the 1987 lettuce experience in 1991/92.

Elsewhere, adverse weather resulted in a decline of 22 percent this year in fall planted acreage of tomatoes in Florida. Heavy rains washed out or delayed planting of some of the state's fall tomato acreage.

### Potato Prices Lower With Large Fall Crop

A large 1991 fall potato crop has dampened growers' price expectations for the remainder of the 1991/92 marketing year, and consumers can expect lower retail prices for fresh potatoes during the first half of 1992. As of mid-October, shipping-point prices for fresh potatoes in most areas were below levels of the same time last season.

Because the fall crop generally makes up about 88 percent of annual supplies, its size is a major determinant of season-average grower prices, which will likely range from \$4-\$5 a cwt, compared with the \$6.08 average for the 1990 crop.

USDA forecasts fall potato production up 5 percent from 1990, the result of 1 percent more harvested area and 4-percent-higher yields. Estimated fall production is expected to reach a record 371 million cwt. North Dakota, which experienced drought-reduced output the last 3 years, produced 14 million cwt more potatoes than in 1990, while Idaho and Washington harvested 3 and 5 million cwt more than a year earlier. Central states also harvested more fall potatoes than in 1990. However, drought cut output in eastern states by 13 percent.

Estimated U.S. exports of frozen potatoes will decline in calendar 1991, primarily due to lower sales to Canada. As Canada expanded its fry production capacity, U.S. sales to Canada fell to a fraction of last year's volume, with few prospects for recovery in the near future.

However, frozen potato exports to Pacific Rim countries continued to increase. Japan is the major importer of frozen fries, while South Korea replaced Canada in 1991 as the number-two destination for U.S. frozen potato exports. The U.S. also ships significant quantities of frozen potatoes to Hong Kong, Singapore, and Taiwan.

Export volume of frozen french fries for the first 8 months of 1991 dropped 21 percent below the same period a year earlier. Frozen french fry exports in August were less than half of last year's level for that month.

### Apple Prices Strong Despite Larger Crop

Retail apple prices are expected to remain relatively strong throughout the marketing season. Lower apple production in Western states will boost prices more than larger crops in Eastern and Central states will depress them. Although U.S. output is forecast up 4 percent from 1990, Washington's production, which usually makes up half of U.S. output, is expected to fall 4 percent, Oregon's 36 percent, and Idaho's 21 percent. California expects 3-percent-higher production.

The smaller western apple crop should support prices during the last half of the 1991/92 marketing season, when most marketings are western apples supplied from storage. Grower prices averaged 24.9 cents a pound in October compared with 19.3 cents a year ago. Fresh apple prices during October generally were higher than a year earlier in all the major fresh shipment areas.

Apple exports for 1990/91 (July to June) jumped 8 percent from the year before. Increased funding from USDA's Market Promotion Program may have contributed to strong export sales to the EC and Asian markets. Exports of apples to Canada, the number one destination of U.S. apple exports, rose 12 percent in 1990/91.

U.S. pear production is expected to decline 9 percent from 1990 levels. The smaller crop and strong processing

## Commodity Overview

demand have resulted in higher grower prices and will likely sustain prices throughout the marketing season. Grower prices in October averaged 23 percent higher than a year earlier.

Export demand for fresh pears has been strong in 1990/91 (July to June), jumping 18 percent to 101,896 metric tons. Canada and Mexico together account for over half of U.S. fresh pear exports, while the EC and Sweden are also major importers of U.S. fresh pears.

A strong export market also seems assured for the 1991/92 season. Small 1991 European crops are expected to boost imports of apples and pears from the U.S. Continuing liberalization of trade policies in Pacific Rim countries are also expected to expand U.S. sales of apples and pears. Strong export demand will tend to keep domestic retail prices high.

### Tobacco Grower Prices Rise

With all of the 1991 flue-cured crop sold, growers' prices exceeded 1990 prices by about 5 cents a pound. Higher price supports and relatively tight supplies accounted for the increased grower prices. Flue-cured production dropped 8 percent from 1990, and carryover stocks stand 7 percent below a year earlier. In addition, excessive rain reduced quality in some areas, and given tight supplies, the stabilization cooperative took more tobacco under loan than some growers anticipated.

Although burley auction sales did not begin until November 25, prices are expected to average higher than last season's \$1.75 a pound. Tight burley tobacco supplies are boosting burley prices. Burley production rose 10 percent from 1990, but carryover stocks are 10 percent smaller than a year earlier.

The national marketing quota for the 1992 flue-cured crop will be announced by December 15, 1991, and quotas for burley will be announced by February 1, 1992. Each quota is the sum of: (1) domestic cigarette manufacturers' stated purchase intentions during the 1992/93

marketing year; (2) average exports for the 3 most recent marketing years; and (3) an adjustment to maintain loan stocks at 15 percent of the basic quota, or at least 100 million pounds for flue-cured (50 million for burley).

Individual farm quotas and allotments also reflect undermarketings (unused quota) and overmarketings of the current crop. The size of 1992 quotas hinges largely on cigarette manufacturers' expectations about future domestic and foreign demand for U.S.-produced cigarettes.

Price supports are expected higher for 1992 flue-cured and burley tobacco crops because of the higher prices and costs for the 1991 crops. Flue-cured and burley price supports are based on a combination of a 5-year moving average of market prices, and changes in a cost-of-production index. For other tobacco types, support is based on changes in the parity index. [Glenn Zepp (202) 219-0883]

For further information, contact: Boyd Buxton, fruit; Gary Lucier, vegetables; Peter Buzzanell, sweeteners; Verner Grise, tobacco; Doyle Johnson, tree nuts and greenhouse/nursery; David Harvey, aquaculture; Lewrene Glaser, industrial crops. All are at (202) 219-0883. **AO**

### Upcoming Reports from USDA's Economic Research Service

The following are December release dates for summaries of the ERS reports listed. Summaries are issued at 3 p.m. Eastern time.

#### December

- 3 Exports
- 12 Vegetables & Specialties Yearbook
- 13 Sugar & Sweetener
- 16 Agricultural Income & Finance
- 17 Tobacco Yearbook
- 19 Agricultural Outlook

## Commodity Spotlight



## Anomalies in the U.S. Vegetable Oil Market

The U.S. produces nearly 40 percent and consumes on average 35 percent of the world's soybean oil. Yet despite the ability to produce sufficient oil for domestic consumption, the U.S. became a net importer of vegetable oils in 1990, and actually began importing small amounts of soybean oil in the mid-1980's.

Developments in recent years in the U.S. vegetable oil market—particularly in soybean oil—can be explained partly by the changing objectives of U.S. export programs, as well as developments in foreign markets. The U.S. government has provided assistance for exports of vegetable oils, mainly soybean oil, since the early 1950's.

### A History of Veg-Oil Export Assistance

At varying times, U.S. export programs have reflected humanitarian, diplomatic, and financial goals, with a key objective being the development of foreign



## Commodity Spotlight

markets for U.S. agricultural products. For example, in 1954 it was the "Food for Peace" program, now known as P.L.480, that ushered in an era of U.S. government support for exports.

Prior to 1955, soybean oil exports were small—soybeans did not take hold as a major U.S. crop until well after World War II. The P.L.480 program helped boost U.S. soybean oil exports from just 50 million pounds in 1954 to over 550 million pounds a year later. By 1965, soybean oil exports under P.L.480 had risen to 1.35 billion pounds.

During the 1950's and 1960's, large stocks of most agricultural commodities accumulated in government storage. For soybeans, however, strong growth in domestic and foreign demand during those decades kept soybean stocks low and stimulated production. Exports of soybeans and soymeal went mostly to Western Europe, with its rapidly expanding postwar economies. Sales were on a cash basis, and government involvement in those sales was minimal.

But the vegetable oil market did not benefit from the same strong market conditions as soybeans and soybean meal. While global demand for vegetable oils did rise during this time, supplies often outstripped demand, generating surpluses.

U.S. concessionary programs boosted sales to countries in the developing world that would not otherwise have the means to purchase oil. Under concessionary programs, USDA provided direct credits at close to commercial rates for sales of vegetable oil and other agricultural commodities from 1956 through 1980. In these years, USDA's Commodity Credit Corporation (CCC) assisted exports of about 2.4 billion pounds of vegetable oil.

### Export Assistance Recedes in the Seventies...

The 1970's was a decade of growth in U.S. agricultural exports. While P.L.480 and credit programs still played a role in export sales to developing countries, the decade was marked by less government involvement in agricultural exports in

general, and vegetable oil in particular. By 1979, a year when exports of U.S. vegetable oils reached a record 3.75 billion pounds, government assistance of all kinds covered only about 25 percent of the total.

A number of factors contributed to the growth of U.S. agricultural exports in the 1970's. One of the most prominent was U.S. abandonment of the fixed exchange rate, which enabled U.S. farmers to become price-competitive in world markets. Rising incomes in many countries also boosted demand for food and helped stimulate U.S. commercial agricultural exports.

By the early 1980's, increasing export demand for vegetable oil began to stimulate oilseed production in other parts of the world. Many countries adopted policies that encouraged the shift of land and other resources into vegetable oil production. Output expanded in South America, the European Community (EC), China, and India. Malaysia and Indonesia also became major vegetable oil producers in the 1980's.

EC vegetable oil production in particular expanded substantially. Between 1980

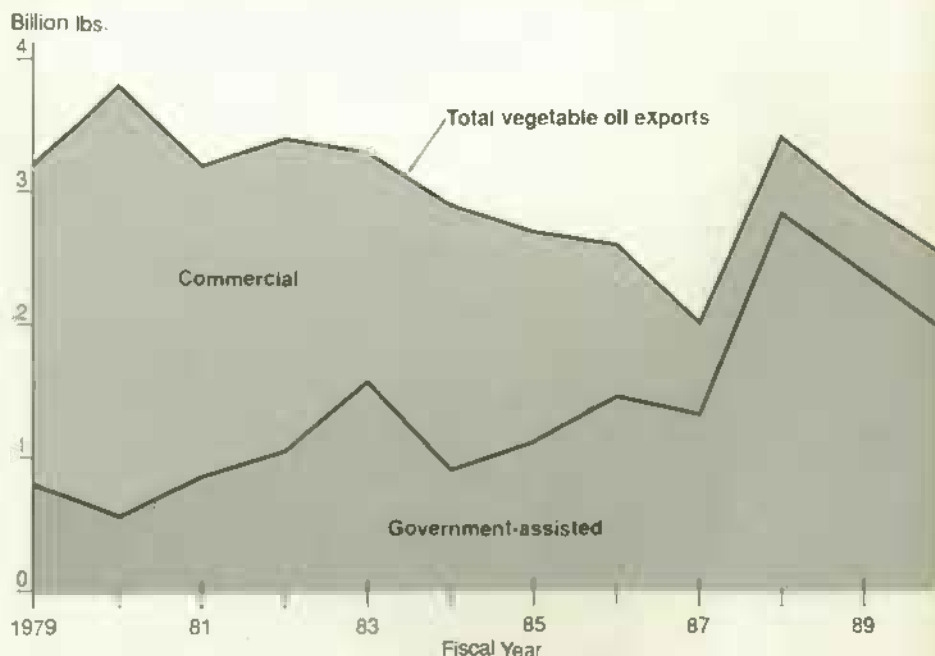
and 1990, EC oilseed production expanded from 3.2 million metric tons to over 13 million tons. Much of the growth was the result of government policies that encouraged production—some intended to offset burgeoning EC grain production. EC support prices for oilseeds were substantially above world prices throughout the 1980's, particularly after 1984 when world prices declined sharply.

### ...Re-Emerging in the Late Eighties

In an environment of rising foreign production, in some cases subsidized, U.S. export programs again began to play a prominent role in U.S. soybean oil exports. As U.S. exports declined in the 1980's, the share of government-assisted sales climbed. In 1985, the Export Enhancement Program (EEP) was authorized to improve the competitiveness of U.S. agricultural exports and to counter subsidized foreign exports.

With the EEP in place, government-assisted vegetable oil exports rose to 65 percent of total vegetable oil exports in 1986/87. Still, U.S. vegetable oil-

Government Plays Larger Role in U.S. Vegetable Oil Exports



Government-assisted exports include P.L.480, GSM, and EEP.



exports—although benefiting from more government assistance—continued to sag, while world vegetable oil trade expanded.

Then, from 1987 to 1989, U.S. vegetable oil exports again began to climb, with the proportion receiving government aid reaching nearly 66 percent by 1987/88. In that year, vegetable oil exports were the highest since 1981/82. For 1991/92, soybean oil exports are forecast at 1 billion pounds, but government assistance will be necessary to reach forecast exports.

### U.S. Consumers Buy Canola

While U.S. vegetable oil exports increased with the help of EEP and other government assistance, the U.S. managed to become a net importer of vegetable oil in 1990. The U.S. traditionally has imported significant quantities of some foreign vegetable oils, such as palm kernel, coconut, and olive oil. The imports are generally oils that the U.S. either does not produce or produces only in small quantities. But recently, the U.S. has imported small quantities of soybean oil, and growth in Canadian rapeseed oil imports (canola)—a direct substitute for soybean oil—has increased substantially.

These patterns of imports and consumption are partly related to the characteristics of the U.S. soybean and vegetable oil market, and partly to the effects of export assistance. Although the U.S. is a large soybean producer, its total vegetable oil exports, including soybean oil, represent a small share of world trade. Between 1987 and 1990, U.S. vegetable oil exports made up only about 6 percent of world trade in vegetable oils.

To the extent that government assistance boosts the volume of U.S. vegetable oil exports, this may have a greater impact in raising domestic oil prices relative to world prices. However, even with government assistance, the volume of U.S. vegetable oil exports is probably not large enough to be a significant influence on the world price of vegetable oils.

The U.S. soybean oil base price, known as the Decatur price, was lower than the European Rotterdam price before 1985. After 1985, however, Decatur soybean oil prices have been consistently higher than Rotterdam prices, with the exception of the most recent few months.

As a result, domestic consumers have begun to substitute low-priced imported oils for relatively higher priced domestic soybean oil. The U.S. does have a 22.5-percent ad valorem tariff on foreign soybean oil imports, and somewhat lower tariffs on other vegetable oils. But canola—Canada's edible rapeseed oil—enjoys one of the lowest tariffs of any vegetable oil.

Prior to 1985, canola could not be consumed as a food item in the U.S. The Food and Drug Administration finally granted GRASS status (Generally Recognized as Safe Substance) to canola in January 1985. The recent U.S.-Canada Free Trade Agreement lowered canola's tariff to 3 percent, and in January 1992 the tariff will be removed entirely.

U.S. imports of canola from Canada have increased sharply over the last few years. While canola's low saturated fat content likely encouraged growth in domestic consumption, price competitiveness with U.S. soybean oil has probably also helped boost canola consumption's share of the U.S. market.

### Who Benefits from U.S. Export Assistance?

Several groups are affected by export assistance for vegetable oil—U.S. farmers, processors (in the case of soybeans), U.S. consumers, foreign consumers, and foreign vegetable oil exporters. Although an exact measure of benefits to various groups depends on a thorough economic analysis, some of the factors that determine benefits for affected groups are raised here.

If export assistance for vegetable oil stimulates or maintains oilseed production, or results in higher farm prices for oilseeds, U.S. farmers would benefit from the stronger demand or prices. In the case of soybeans, processors may benefit if export assistance for vegetable oils means more soybeans are crushed.

The benefits to U.S. consumers depend on the availability of soybean oil or other vegetable oils, as well as relative prices when export assistance effectively shifts the sale of oil to export markets. If domestic production is diverted to export markets, and domestic soybean oil prices rise, U.S. consumers can escape higher prices if cheaper substitutes are available for consumption. [Roger Hoskin (202) 219-0840 and Karen Ackerman (202) 219-0821] AO



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## World Agriculture & Trade



### The EEP: An Update

**T**he U.S. continues to counter price subsidies in global markets with the Export Enhancement Program (EEP), a targeted export subsidy. In fiscal 1991, USDA awarded \$916.6 million in generic commodity certificates to exporters—for sales of barley malt, barley, frozen poultry, rice, table eggs, vegetable oils, wheat, and wheat flour. Under the EEP, U.S. exporters arrange sales with importers in targeted markets and then bid for bonuses awarded by USDA.

Relatively large supplies and increased competition caused world grain prices to fall in much of fiscal 1991. In response, the total EEP bonuses awarded rose to almost three times the fiscal 1989 and 1990 levels. However, the fiscal 1991 EEP bonus value was still below the more than \$1 billion awarded to exporters in 1988.

#### Most EEP Bonuses Are for Wheat

Wheat is the chief EEP commodity, accounting for 84 percent of total bonuses in fiscal 1991. EEP shipments represent

a substantial share of U.S. wheat exports—an estimated 60 percent in fiscal 1991.

Major changes in world wheat supply and demand in 1990/91 contributed to higher EEP bonuses in fiscal 1991. U.S. wheat production in 1990/91 was up sharply from the drought-reduced crops in 1988/89 and 1989/90, to 74.5 million tons. Other wheat exporters' and major importers' production and stocks also climbed in 1990/91 to record and near-record levels.

As U.S. wheat supplies grew, EEP wheat sales increased. After falling to 12.2 million tons in the 1989/90 (June/May) marketing year from a high of 25.5 million in 1987/88, EEP wheat sales rose slightly to 14.3 million tons in 1990/91 in spite of budget constraints. Marketing year 1991/92 EEP wheat sales are off to a strong start. June-September 1991 EEP wheat sales were 6.5 million tons, almost twice last year's sales for the same period.

EEP bonuses, aimed at meeting subsidized competition in targeted markets, represent a growing proportion of quoted U.S. wheat export prices (f.o.b. Gulfport No. 2 hard red winter). Following

droughts in 1988 and 1989, soaring world wheat prices led to reduced EEP bonus levels. As global price competition intensified, EEP bonuses rose rapidly in the fall of 1990, and continued to increase through 1991. The average monthly EEP bonus topped \$50 a ton in July 1991. Since September 1990, EEP bonuses have accounted for 25 to 45 percent of U.S. wheat export price.

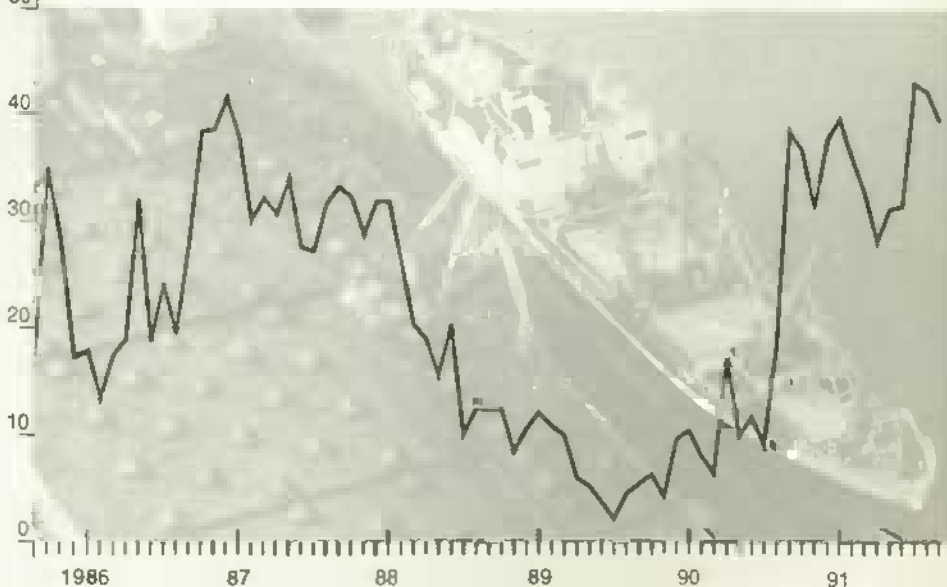
#### EEP Wheat Sales to Over 40 Countries

While the EEP has assisted wheat sales to more than 40 countries since the program began, Algeria, China, Egypt, Morocco, and the Soviet Union continue to be major purchasers under the program. EEP wheat sales to the Philippines have also increased in recent years. These six purchasers together accounted for over 80 percent of total EEP wheat sales in 1990/91.

The Soviet Union and China alone represented close to 50 percent of all EEP wheat sales in the 1990/91 marketing year. EEP wheat sales to China of 4.6 million tons in 1990/91 increased by 40 percent from the previous year. But EEP sales to the Soviet Union in 1990/91 of

EEP Wheat Bonuses Rise to Meet World Competition

Percent  
50



EEP bonus as share of monthly U.S. wheat export price (f.o.b. Gulf).  
Source: ERS.

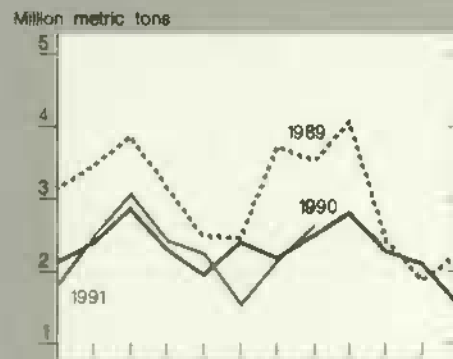
## U.S. Trade Indicators

## World Agriculture &amp; Trade

U.S. agricultural trade balance



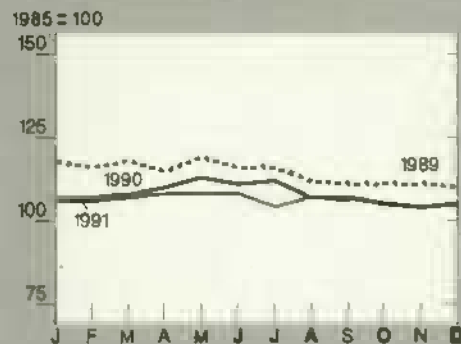
U.S. wheat exports



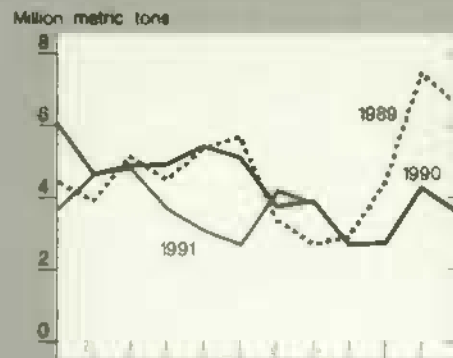
Export volume



Index of export prices



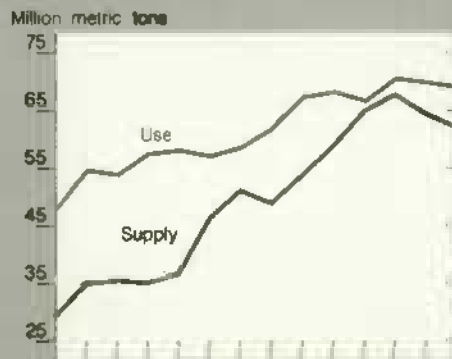
U.S. corn exports



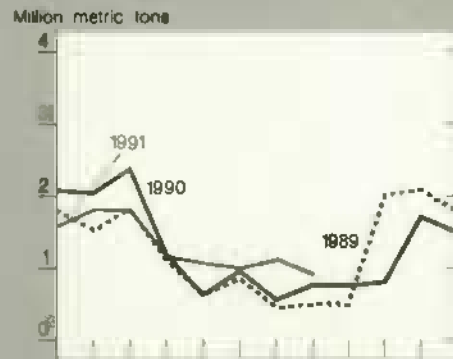
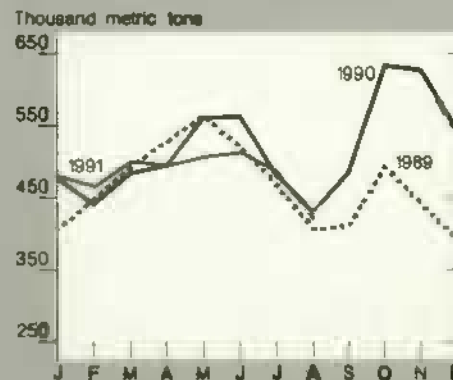
Foreign supply &amp; use of coarse grains



Foreign supply &amp; use of soybeans



U.S. soybean exports

U.S. share of world coarse grains exports<sup>1,2</sup>U.S. share of world soybean exports<sup>1,2</sup>U.S. fruit & vegetable exports<sup>3</sup>

<sup>1</sup>Excluding intra-EC trade. <sup>2</sup>October-September years. <sup>3</sup>Includes fruit juices.

## World Agriculture & Trade

2.1 million tons were down sharply from 3.9 million tons in the previous year.

June-September 1991 EEP wheat sales to both the Soviet Union and China are up from last year's sales during those months. EEP sales to China stood at almost 2 million tons, and sales to the Soviet Union at over 1 million tons. The Soviet Union purchased an additional 1.8 million tons of wheat under EEP in October 1991.

Sales of wheat to the North African countries of Algeria, Egypt, Morocco, and Tunisia under EEP in 1990/91 were higher than in 1989/90. But June-September 1991 sales to Algeria and Morocco were down from the same period last year, as record wheat crops in North Africa lowered import demand. Egypt's EEP wheat purchases are higher this year.

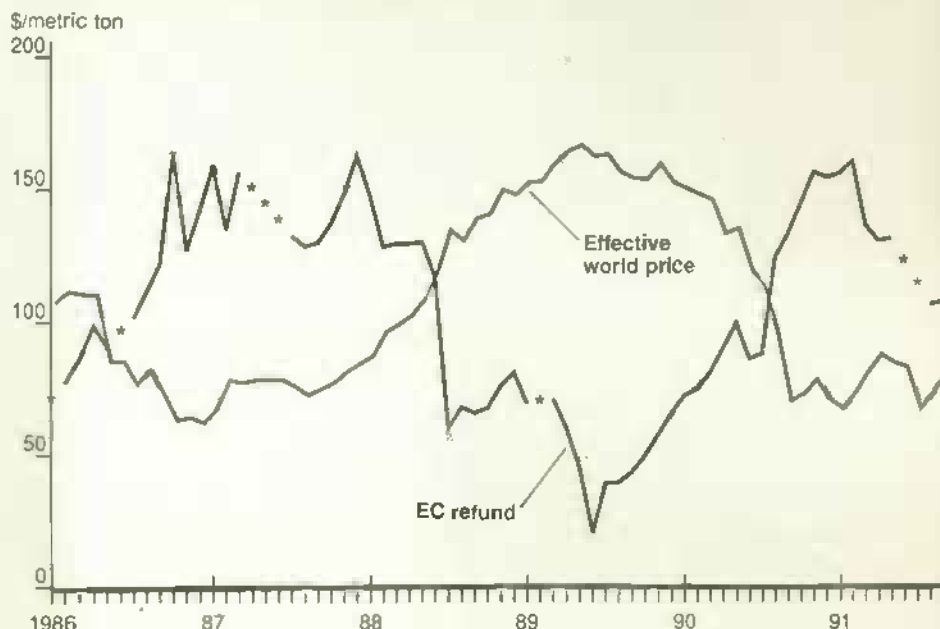
The greatest increases in EEP wheat sales can be found in the Philippines. EEP wheat sales to the Philippines increased from about 850,000 metric tons in the 1987/88 and 1988/89 marketing years, to 1.3 million tons in 1990/91. EEP sales to the Philippines were already 765,000 tons during June-September 1991.

### Bonuses Help Offset EC Export Subsidies

Price competition from wheat exporting countries increased in 1990 and 1991 as global supplies expanded. The European Community (EC), one of the five top wheat producers, has considerable discretion in using different types of export subsidies in any one year.

The EC exports wheat through four main channels: open market tenders, the fixed export refund system, export tenders from intervention stocks, and food aid tenders. Two of the channels—open market tenders and fixed export refunds—involve commercial sales of privately owned stocks. The EC also sells its intervention stocks for export at world prices and provides food aid from intervention stocks.

### EC Refunds Exceed World Wheat Prices



Effective world price is monthly U.S. Gulf price minus EEP bonus.

\*No open market refund was announced this month.

Source: ERS.

The open market tender system allows exporters to bid weekly for export sales. The EC Cereals Management Committee reviews exporter bids and announces a maximum acceptable refund. Export licenses are granted to exporters whose bids the Committee has accepted.

In calendar 1990, maximum open market refund sales accounted for an estimated 48 percent of EC wheat exports. The first open market tender for the 1990/91 season was announced on May 31, 1990. Although the share of total exports accounted for by open market refund sales is not available for a marketing year, maximum open market refunds were announced for export sales of 6.33 million tons of wheat during the 1990/91 season.

EC open market refunds and EEP bonuses generally move together. However, higher EC domestic support prices cause EC refunds to be much larger than EEP bonuses. Monthly average EC open market refunds for common wheat (non-durum, generally soft, European wheat) rose sharply in fall 1990, settled above \$150 per ton in early 1991, and dropped to about \$110 in recent months. At more

than \$150 a ton in early 1991, EC refunds were more than double effective world wheat prices, and have been above world prices since mid-1990.

The EC also announces fixed (or standing) refunds for export sales to traditional EC customers such as Norway, Sweden, and Switzerland which remain valid for specified periods of time. Standing or pre-fixed refunds also have been announced for export sales to other countries such as the Soviet Union. Although aggregate information on export sales assisted by such fixed refunds is not available, it is believed that the incidence of such sales increased in recent years in response to the EEP.

Export sales of wheat from EC intervention stocks are estimated at 1.9 million in 1990/91, slightly higher than in 1989/90 but down from 1988/89 and 1987/88 levels of more than 3 million tons. However, sales from intervention stocks picked up in the spring of 1991 and have remained strong through the fall.



## World Agriculture &amp; Trade

The EC budgeted \$6.4 billion for total grains support in 1991, but did not specify how much should be allocated to export refunds. Judging from export refunds in previous years and the 1991 market situation, EC refunds for wheat alone might approach \$2 billion in 1991.

### Price Competition Still Strong in 1991/92

The world wheat situation in the 1991/92 marketing year is characterized by higher production in the EC, Canada, and smaller wheat exporting countries, but significantly lower production in the U.S. and Australia. Wheat stocks are particularly high in the EC—beginning stocks are currently estimated at a record 14.8 million tons. But U.S. wheat supplies are sharply lower in 1991/92, with production down 28 percent from 1990/91. Ending stocks are projected at 14 million metric tons, the lowest since 1974.

World wheat prices began to rise in June in response to lower U.S. stocks, concerns about the U.S. and Australian wheat crops, and expectations of strong imports in the coming year. Despite its reduced supplies, the U.S. has continued to compete with the EC for export sales this year. World wheat prices are likely to rise in coming months as world supplies tighten. However, barring unfavorable weather, large EC and Canadian wheat inventories will likely restrain price rises.

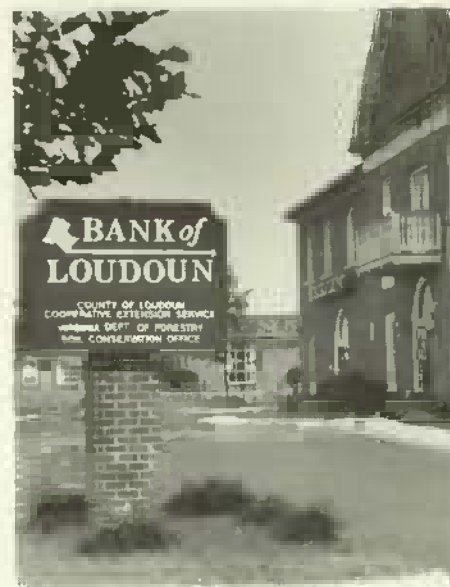
### EEP Sales of Other Commodities Also Higher

Fiscal 1991 EEP sales of flour, table eggs, and vegetable oils were also sharply higher than fiscal 1990's. Chief destinations for EEP flour were the West and Central African countries and Yemen. U.S. exporters used the EEP to sell close to 15 million dozen eggs in fiscal 1991 to Hong Kong, the major EEP purchaser of table eggs. EEP vegetable oil sales spread from Turkey and the North African countries—Algeria, Morocco, and Tunisia—to Mexico and the Dominican Republic.

For fiscal 1992, Congress has not limited EEP spending. EEP bonuses totaled close to \$290 million for the first 8 weeks of fiscal 1992. Traditionally, EEP bonuses have been generic commodity certificates redeemable for Commodity Credit Corporation (CCC) stocks. However, lower CCC inventories encouraged USDA to announce that EEP bonuses would be awarded in cash as of November 7, 1991. As of October 1, 1991, CCC inventories of wheat equaled 4.4 million metric tons compared with 2.8 million last year, while CCC corn and sorghum inventories totaled 11.5 million tons, down from 17.6 million in 1990. [Karen Ackerman (202) 219-0821] AO

Continuing in March  
AO's five-part series  
on  
U.S.-Mexico relations  
and the implications for the future  
  
Part II: Agricultural trade

## Farm Finance



## Farmer Mac's Troubled Start

The Federal Agricultural Mortgage Corporation, known as Farmer Mac, was chartered by Congress in 1987 with the dual mission of expanding the availability of long-term, fixed-rate real estate credit to farmers, and easing financial stress among farmers and lenders. Farmer Mac has the authority to operate a secondary loan market to package agricultural real estate loans for sale to investors.

In a secondary mortgage market, lenders sell existing loans to investors. These loans were created in a primary market, by lenders making new loans to borrowers. Loans sold through the Farmer Mac market would be bundled together (pooled) by a financial intermediary (pooler), and securities backed by the pool would be sold to investors based on the type of loans in the pool. Investors would be guaranteed repayment on these securities by Farmer Mac, which is backed by the U.S. Treasury.

But nearly 4 years after its authorization, expectations for the secondary loan market are withering, as Farmer Mac has yet to guarantee a loan pool.

## Farm Finance

### Weak Loan Demand A Problem

Farmer Mac's troubled start is the result of a complex mix of economic and structural factors. One cause is a weak demand for farm real estate financing in recent years, but another involves the fixed-rate financing provided by Farmer Mac.

Farmers' demand for land was strong during the 1970's and early 1980's. Rapidly appreciating farmland values coupled with low real interest rates encouraged farmers to take on debt to expand their farms. Then, during the farm financial crisis of the 1980's, declining land values and mounting debt combined to dull farmers' appetite for farmland credit as well as lenders' willingness to provide it.

Farmers are now more cautious about assuming new debt to purchase land, and continue to shed debt accumulated in past years. With improved farm incomes, less credit is needed to finance purchases. When farmers have made recent purchases, they have generally done so with cash. In the last 3 years, debt was incurred on only two-thirds of farmland transfers, down from 90 percent 10 years ago.

These developments suggest that the need for a secondary market has receded. With reduced credit demand, lenders have ample funds for extending credit to farmers, lowering their incentive to participate in the Farmer Mac secondary market.

Not only has demand for new credit been weak, but so has demand for the fixed-rate financing that Farmer Mac offers. Lately, variable-rate loans are preferred because they offer lower cost financing. And unlike a decade ago, most farm borrowers are now accustomed to variable-rate loans.

When loans are made with fixed rates, lenders run the risk of interest rates rising above rates at which outstanding loans

### The Language of Secondary Markets

**Secondary Market**—The investment market is usually defined in terms of primary and secondary markets. A primary market is where the original financial exchange is made. Examples include a company issuing stock for sale, or a lender making a loan directly to a borrower. A secondary market occurs when an existing loan is sold by the original lender, or when stock is resold. The New York Stock Exchange is one of the best developed secondary markets—every day, thousands of shares of existing stock are bought and sold by investors. Stocks, corporate bonds, Treasury securities, and home mortgages all have secondary markets.

**Originator**—An originator is a lender, such as a commercial bank, life insurance company, Farm Credit System (FCS) affiliate, or other financial institution. Originators may choose to sell eligible loans—in this case, farm mortgage loans—to poolers and earn origination and servicing fees.

**Pooler**—A pooler is an investment banker, or other security underwriter,

who assembles mortgages into a portfolio, or pool, and issues securities backed by those mortgage assets.

**Underwriting standards**—Underwriting standards are criteria, or guidelines, used to limit the type and amount of risk permitted in a financial portfolio. The rates charged should reflect the risk identified by the underwriting standards. For example, in an insurance market, automobile insurance premiums are lower if the insurance firm underwrites policies only for drivers with accident-free records. Likewise, borrowers with low risk of payment default would receive lower interest rates for loans.

**Cost-of-funds index**—A reported interest rate used by lenders on which to base interest rates offered on new loans. Examples include 1-year U.S. Treasury notes and the commercial bank prime rate which are commonly used to base interest rate adjustments on variable-rate loans. Farmer Mac has proposed creating its own cost-of-funds index by periodically issuing securities.

are being repaid. A secondary market allows lenders to pass on such interest-rate risk to investors while offering fixed-rate loans to farm borrowers. But when interest rates are falling and fixed rates are high relative to short-term variable rates, farmers often prefer variable-rate loans, despite the risk to the borrower.

Surveys of agricultural banks indicate that roughly two-thirds of farm real estate lending in recent years has been at variable rates. To offer lower rates and at the same time to minimize their interest-rate risk, lenders have recently been offering fixed-rate, lower interest loans with short maturities—typically 5 years—that require the borrower to refinance at a new rate.

### Potential Market Looks Small

ERS estimates, based on the latest (1988) data available, suggest that commercial banks, life insurance companies, and the Farm Credit System (FCS) originated around \$7 billion that year in farm and farm-related mortgages. This is less than half the annual volume in the early 1980's when credit demand was greater. Volume from these lenders is critical to Farmer Mac's development since these are the principal farm lenders and own the majority of Farmer Mac stock required for participation.

But the actual origination value from which Farmer Mac poolers can draw will be much less. Data for life insurance companies suggest that as much as 25 percent of their \$1.4-billion volume is

for agribusiness and timber operations, which may not qualify for pooling. Only a handful of life insurance companies are still active in farm lending, so life insurance company participation will depend heavily on the decisions of just a few companies.

If life insurance companies and the FCS hold back, then poolers must rely on commercial banks for most of their origination volume. But much of current farm lending by banks will not qualify for pooling since only 15 percent of banks bought Farmer Mac stock. And those banks account for only 30 percent of outstanding farmland secured debt owed to all banks.

Success of the Farmer Mac market would encourage more banks to buy participation stock. But whether or not the market is successful, much of the \$7 billion annual volume would not meet Farmer Mac's loan documentation requirements. Neither financially strong borrowers nor their lenders will comply with documentation requirements unless they gain substantial benefits.

Even more importantly, the proportion of new funds available for Farmer Mac pooling would be limited because many loans would fail to meet Farmer Mac's loan underwriting standards. If new lending resembles outstanding farm real estate debt, less than half of the \$7 billion loaned in 1988 would have qualified for pooling under Farmer Mac's loan underwriting standards.

### ***Most Farm Operators Don't Qualify***

Analysis of USDA's Farm Costs and Returns Survey (FCRS) shows that at the end of 1989, only a fraction of farm operators met Farmer Mac underwriting standards. Only half of farm operators owe any debt, and of those that do, less than a third are estimated to meet Farmer Mac underwriting standards.

Farmer Mac applies seven loan underwriting standards that farmers must meet to be eligible for the market. Several of the standards involve balance sheet liquidity, financial solvency, profitability, collateral requirements, and debt servicing ability.

Farmer Mac guidelines identify specific financial ratios for applying these five standards. The ratios with the greatest influence on eligibility are liquidity and debt-servicing ability—poor performance in these two areas severely limits eligibility. Analysis of the 1989 data indicates only about half of farm operators with debt meet Farmer Mac's specified ratios assessing liquidity or debt servicing.

Other standards cover creditworthiness and loan terms and conditions. Although the analysis did not apply these standards to determine the number of eligible operators, it is likely that application of these standards would further reduce the number of eligible farm operators, as well as the value of outstanding debt eligible for the secondary market.

The relatively high creditworthiness needed by qualifying borrowers also suggests that even if the market had been operational sooner, it would have had little effect on easing financial stress among farmers who most needed help. Benefits from an operating Farmer Mac market would accrue primarily to the most creditworthy farmers. But these farmers already receive the most competitive loan interest rates and terms.

**Farm Real Estate Lending Fell Sharply During the 1980's**



Estimated values for life insurance companies, commercial banks, and Federal Land Banks,

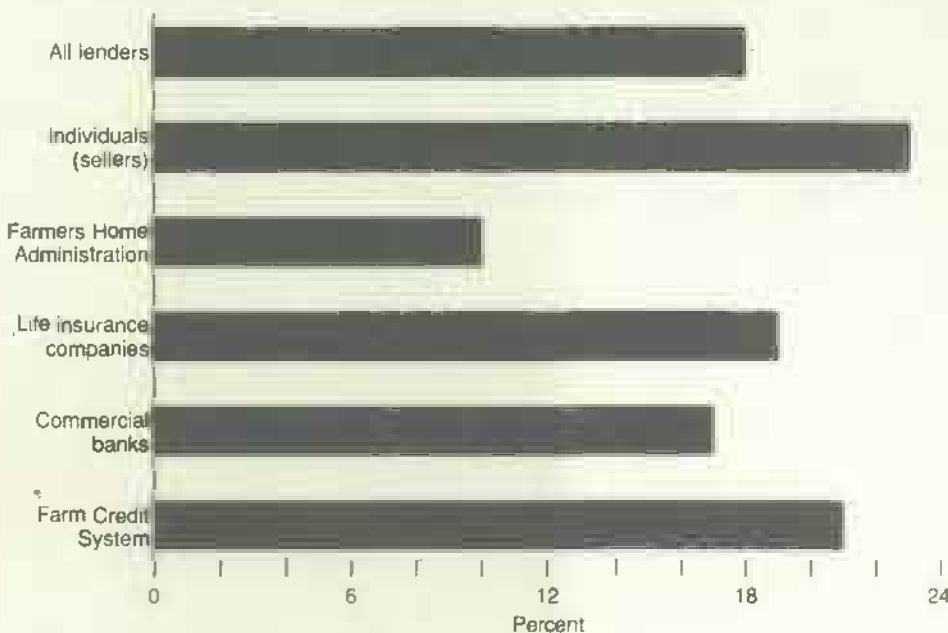
Based on FCRS estimates, as little as 20 percent, or \$8.5 billion, of the farm real estate debt owed by farm operators would qualify for sale in 1989. As much as \$3 billion of this debt was owed to lenders unqualified to originate loans for the market. FCRS excludes debt associated with landlords and non-operators, since the FCRS provides estimates only for farm operators. But nonoperators hold less than 15 percent of farm real estate debt.

Because much of the outstanding debt would not qualify for the Farmer Mac market, the volume available to poolers is substantially limited. And of the volume that does qualify, most would have to be rewritten in order to meet Farmer Mac's loan documentation requirements. Redocumentation not only requires borrower consent, but can also be costly.



## Farm Finance

### Less than a Fifth of 1989 Farm Operator Debt Would Qualify for Farmer Mac



Source: Farm Costs and Returns Survey.

### Bankers & Poolers Reluctant

Following initial enthusiasm, commercial bank interest in Farmer Mac has waned. One reason is that banks specializing in farm lending—the agricultural banks—now hold fewer loans than normally. Loan-to-deposit ratios for agricultural banks, a common measure of a bank's liquidity, averaged 0.55 in early 1991, far below the 0.65-0.70 range that these bankers consider desirable. Since agricultural banks have low loan-to-deposit ratios, they have little need to sell loans to raise the liquidity of their portfolios.

Bankers' incentive to participate was further reduced when regulators required them to hold capital against the full value of the farm loan sold. Participating banks are required to hold reserve capital so that they can absorb the first 10 percent of loss on any defaulted loan. The 10-percent requirement greatly lowers the profit potential of a loan sale. The requirement is unique to the Farmer Mac market and has been a structural drawback that successful secondary housing mortgage markets do not have to face.

A small primary market either from new originations or outstanding mortgages means a low volume available from which the secondary market can draw. This influences the economics of loan pooling. Without sufficient volume, poolers are reluctant to make the financial expenditures necessary to pool loans. Some also feel that the present structure of the market limits its potential volume.

### Proposals for Structural Change

To jump start the market, Farmer Mac has proposed modifying its original structure. Farmer Mac's present structure requires a pooler to initiate the operation by pooling loans, applying for a Farmer Mac guarantee, and then issuing securities to investors.

Farmer Mac has proposed to sell its own securities and create a cost-of-funds index—allowing lenders to tie mortgage interest rates to that index. Poolers would issue securities as before, but Farmer Mac rather than investors would purchase them, holding the securities in its portfolio. By adopting this structure, savings can be realized and passed along to farmers in the form of lower interest rates. This approach is similar to the structure of the secondary market for FmHA guaranteed loans operated by Farmer Mac, called Farmer Mac II.

The Farm Credit Administration (FCA), Farmer Mac's regulator, has rejected this modification on the grounds that Farmer Mac's Federal charter does not allow it to issue or purchase securities. Pending legislation would give Farmer Mac explicit authority to use this approach and would more clearly define FCA's rulemaking authority over Farmer Mac. [Steve Koenig (202) 219-0892 and Jim Ryan (202) 219-0798] **AO**

### December Releases from USDA's Agricultural Statistics Board

The following reports are issued at 3 p.m. Eastern time on the dates shown.

#### December

- 3 Egg Products
- Poultry Slaughter
- 5 Dairy Products
- 6 Celery (1 p.m. report)
- 11 Crop Production
- 13 Milk Production
- 16 Potato Stocks
- Vegetables
- 17 Turkey Hatchery
- 18 Cattle on Feed
- 19 Catfish
- 23 Cold Storage
- Livestock Slaughter
- Eggs, Chickens, & Turkeys
- 30 Peanut Stocks & Processing
- 31 Agricultural Prices



## Food &amp; Marketing



## Outlook for Food Prices

**M**oderate increases in most food categories in 1992 are likely to raise average food prices just 2-4 percent above 1991. While the general economic outlook is clouded by uncertainty over the speed of the recovery, larger supplies—and lower prices—of some food commodities will moderate any upswing in the Consumer Price Index (CPI) for food next year.

Food prices in 1991 increased at a much slower pace than in 1989 and 1990. Final 1991 CPI figures will be released in January, but sufficient information is available now to suggest that the rise in the food CPI will be only about 3 percent. By contrast, the food CPI increased 5.8 percent in each of the previous 2 years. This year's food price increase will be the lowest since 1986.

The pace of recovery from the recession remains uncertain. While further easing of credit by the Federal Reserve Board is expected to stimulate the economy, most analysts believe the recovery will be slow. Increased unemployment and decreased income have reduced consumer confidence in 1991, tempering food demand. This year's economic con-

ditions and consumer attitudes will likely carry into 1992, discouraging consumer purchases in grocery stores and in restaurants.

### *Larger Meat Supplies For 1992*

Reduced beef production in 1989 and 1990 tightened supplies and drove retail beef prices to record-high levels. Short supplies and high prices continued into this year, but a modest increase in beef production in the third quarter brought the first quarterly decline in the CPI for beef since the second quarter of 1986. Beef production is expected to increase slightly in 1992, which will mean slightly lower retail beef prices next year.

Pork production also declined in 1990, causing tight supplies and high prices that lasted well into 1991. But higher pork production in the second half of this year has brought retail prices down, most noticeably during the holiday season. Pork production will continue to expand in 1992, resulting in a retail price decline of as much as 8-12 percent.

Poultry production grew at a 5-percent rate in 1991. Retail poultry prices consequently remained relatively stable for most of 1991, but began to fall in the fourth quarter as red meat supplies increased. In 1992, poultry production will continue to expand, but at a slower rate. The modest expansion, coupled with larger supplies of red meats, will likely put next year's average poultry prices below 1991.

Meat and poultry purchases account for 21 percent of consumer food expenditures, exerting a strong influence on food CPI fluctuations. Prices of red meats this year have not increased at the rates of the past few years, and poultry prices have averaged lower this year than last. Beef, pork, and poultry prices have been the major moderating factor in the all-food CPI this year. With meat and poultry prices expected to decline next year, the all-food CPI will increase at an even slower rate.

### *Citrus Production Still Recovering*

Weather had a dramatic impact on fruit and vegetable production in 1991. A severe freeze in California last Christmas seriously damaged citrus crops, reducing fresh market orange supplies. The CPI for fresh fruit increased at a 78-percent annual rate during the first quarter, and 26 percent in the second quarter. As other fruits became more plentiful in the third and fourth quarters, prices began to decline, but remained well above 1990 levels.

Cold, damp weather continued into the spring on the west coast, slowing fresh vegetable growth and disrupting marketing. As a result, vegetable prices were much higher than normal in the first and second quarters of 1991. As vegetable supplies returned to normal in the third quarter, prices declined. In the fourth quarter, however, a serious whitefly infestation has slowed the vegetable harvest, and prices probably will rise.

In 1992, California orange production will not fully recover from last year's freeze, because of tree damage. Domestic fresh orange supplies will not reach pre-freeze levels, and fresh fruit prices will likely remain high through 1992.

The whitefly infestation in southern California will hamper vegetable production through the first quarter of next year. Prices for a number of fresh vegetables will be high and supplies short. As the vegetable harvest proceeds in the second quarter, supplies and prices of fresh vegetables should return to more normal levels. *[Ralph Parlett (202) 219-0870] AO*

## Food &amp; Marketing

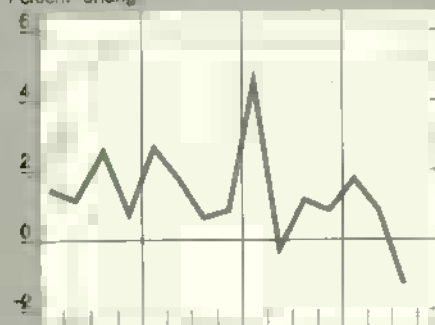
## Food &amp; Marketing Indicators

CPI: Total food<sup>o</sup>

Percent change

CPI: Food at home<sup>o</sup>

Percent change

CPI: Food away from home<sup>o</sup>

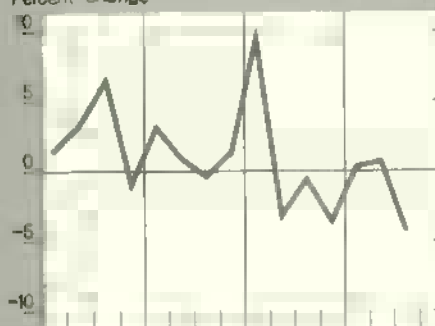
Percent change

Retail cost of food<sup>1</sup>

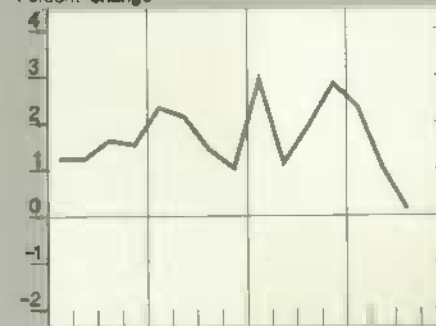
Percent change

Farm value of food<sup>1</sup>

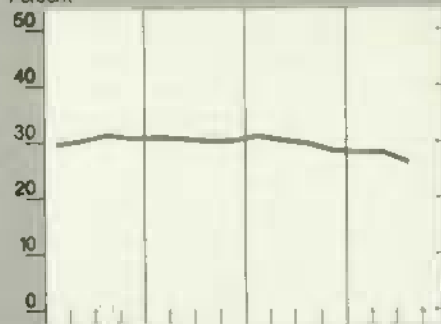
Percent change

Farm-retail spread<sup>1</sup>

Percent change

Farm share of retail cost<sup>1</sup>

Percent

Food marketing cost index<sup>2</sup>

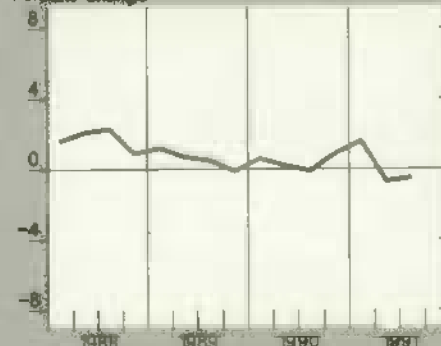
Percent change

Index of hourly earnings<sup>3,4</sup>

Percent change

Index of packaging prices<sup>4</sup>

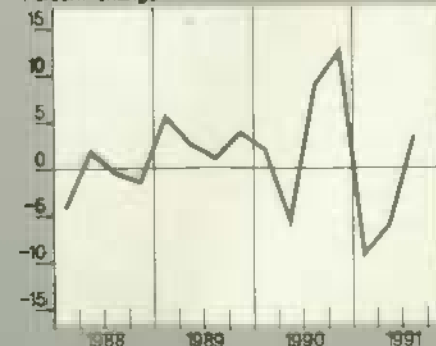
Percent change

Index of rail freight rates<sup>4</sup>

Percent change

Index of energy rates<sup>4</sup>

Percent change



<sup>o</sup>CPI unadjusted. <sup>1</sup>Index based on market basket of farm foods. <sup>2</sup>Index of changes in labor, packaging, transportation, energy, and other marketing costs.

<sup>3</sup>In food retailing, wholesaling, and processing. <sup>4</sup>Component of food marketing cost index.

All series expressed as percentage change from preceding quarter, except for "Farm share of retail cost" chart.

## Policy



## Yearend Legislative Report

**O**n November 28, 1990, President Bush signed the Food, Agriculture, Conservation, and Trade Act of 1990, which provided a comprehensive framework for the administration of farm programs for 1991-95. Even before the ink had dried on the new farm act (P.L. 101-624), calls for revisions to the legislation began. Adverse weather, concern over the lack of progress in multilateral trade negotiations, and commodity price weakness provided further impetus for change.

The Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508), signed before the President gave final approval to the 1990 farm act, had made some amendments to the farm act without changing its fundamental structure. Subsequent farm legislation has been confined to appropriations for fiscal 1991 and 1992 and has not significantly altered the 1990 farm act.

The Dire Emergency Supplemental Appropriations Act (April 1991) removed the \$425-million cap placed on the Export Enhancement Program by fiscal 1991 appropriations legislation. Another provision of the act added funds for mandatory commodity and conservation programs in fiscal 1991 and \$200 million more for food stamp benefits. Budget legislation which President Bush approved on October 28, 1991 authorized \$52.5 billion in agriculture appropriations for fiscal year 1992. Neither the April nor October appropriations package altered the operation of agricultural programs.

Fiscal 1992 appropriations included \$7.3 billion to offset realized losses for the Commodity Credit Corporation's fiscal 1991 commodity price and income support programs. This does not include funding necessary for the 1992 price and income support programs. Actual outlays for these programs in fiscal 1991 amounted to approximately \$10 billion.

About 62 percent of the \$52.5 billion in fiscal 1992 agriculture appropriations is earmarked for domestic food assistance programs, including food stamps, the school lunch program, and the Women, Infants, and Children program (WIC).

No spending cap exists for the fiscal 1992 Export Enhancement Program (EEP). Bonuses to exporters under EEP amounted to an estimated \$917 million in fiscal 1991.

The 1990 farm act authorized establishment of the Rural Development Administration (RDA) within USDA. Though the Bush Administration requested funding for the RDA, no funding has yet been provided.

### *Congress Proposes Dairy Program Changes*

Among the more significant proposals for farm program changes are bills that would modify the dairy program and provide additional disaster relief for the farm sector.

In June 1991, USDA Secretary Madigan presented Congress with the USDA Milk Inventory Management Report mandated by the 1990 farm act. The report evaluated four types of milk inventory management programs: a target price/deficiency payment program, a reclassification plan, a two-tiered pricing plan, and a milk marketing diversion program (see August AO for more detailed discussion). Each option, however, would continue the current dairy program support for milk prices through government purchases of manufactured dairy products—butter, cheese, and nonfat dry milk.

After assessing the potential consequences of each of these types of programs and comparing them with the current dairy program, the USDA report concluded that the current program performs adequately. The report pointed out that the current program enables producers to react to market signals, while providing protection against the risk of large price declines.

Despite the conclusion of the USDA milk inventory management study, Congress has been considering significant changes in the dairy program. Proposed revisions include an increase in milk price-support levels, a voluntary short-term production cutback, a two-tiered milk price support scheme, a long-term milk supply management system, and mandatory fortification of lowfat milk with additional nonfat solids.

All proposed changes would increase support to the dairy sector. But under the "pay-as-you-go" scoring rules of the 1990 Omnibus Budget Reconciliation Act, any changes in the dairy program that involve additional outlays must be offset by producer assessments or by declines in other programs to maintain budget neutrality.

The Senate Agriculture Committee recently approved a bill that would overhaul the dairy program and increase milk prices for farmers. Provisions in the proposed bill include a 10-percent increase in milk price supports, a voluntary diversion plan paying farmers to slaughter cows to reduce milk production, and an increase in milk solids content to increase protein levels in milk.



## Policy

The committee approved the bill, folding it into a House bill, H.R.2893, that renews disaster assistance programs.

A bill reported out of the House Agriculture Committee in July (H.R.2837), would have amended the current dairy program by raising the support price for manufacturing-grade milk to \$12.60 a cwt, up from the current level of \$10.10. In addition, the bill would have limited milk production. The Administration, as well as some members of Congress, opposed the bill, which led the committee to amend the proposed legislation. In November, the committee approved a dairy diversion program that would pay farmers to produce less milk, but would raise support prices by \$1 per cwt.

The Administration has indicated that any increase in price supports is not acceptable. Since its low of \$10.02 a cwt last spring, the Minnesota-Wisconsin manufacturing-grade milk price rose to \$12.50 in October, as farmers reduced milk production. This price rise has since reduced some of the pressure for new legislation. At this time, the amended House bill does not appear to have support for a paid diversion program for milk producers.

### *Disaster Assistance Still Pending*

Congress is considering disaster assistance for the third time in the past 4 years, addressing it in four pending bills. Each bill would provide assistance to agricultural producers who suffered crop losses from drought or natural disasters during the 1990 and 1991 crop years.

The Agricultural Disaster Assistance Act, H.R.2893, is the only one of the four bills that has made it out of committee thus far. This bill passed the House in July and was reported out of the Senate Agriculture Committee in October. H.R.2893 would extend the disaster provisions of the 1990 farm act to 1991 crops. Also in late October, the House included \$1.75 billion for disaster relief in dire emergency supplemental appropriations and \$943 million for the Federal Emergency Management Agency (FEMA) in fiscal 1992.

On November 15, the Senate Agriculture Committee approved its version of a Dire Emergency Supplemental Appropriations bill. The Senate bill is similar in content and funding to the House bill, with \$1.75 billion in disaster relief or crop loss assistance, and \$943 million for FEMA to assist communities struck by disasters such as floods or fires.

A major problem with disaster relief at this time is that the Administration believes that the amount of funding provided in the bills for agricultural disasters is excessive, and that the designation of this amount as an emergency requirement is inappropriate. Under the budget law, only emergency funding is exempted from the budget neutrality (pay-as-you-go) requirements. However, both Congress and the Administration must agree on what is designated as emergency spending for it to be exempt.

The Administration would only designate part of the FEMA funds as emergency funding; the remaining FEMA funds and disaster relief would be subject to the pay-as-you-go requirements, necessitating spending reductions in other programs. Congress would designate the entire disaster relief and FEMA appropriations as emergency spending.

Aside from the issue of funding, the Administration feels that existing Federal programs, such as crop insurance and the FmHA disaster loan program, are the appropriate means to help farmers deal with local agricultural disasters, and has taken steps throughout 1991 to expand eligibility for these programs. So at this time, it is not clear what type of disaster assistance program, if any, will become law.

### *Technical Corrections To 1990 Farm Act*

About 45 bills or resolutions currently pending in Congress propose to amend the 1990 farm act. Of these, only the Food, Agriculture, Conservation, and Trade Act Amendments of 1991 (H.R. 3029) have progressed beyond committee action.

This "technical revisions" bill passed the House on July 31, 1991 and was sent to the Senate 2 days later. On November 22, the Senate passed its version of technical revisions. The two versions must now go to a House-Senate conference committee for reconciliation, be voted upon by the full Congress, and if approved by Congress, be forwarded to the President for signature or veto.

The technical revisions bill approved by the House of Representatives makes some changes, but does not alter the basic framework of farm legislation. The 1990 act left many actions to the discretion of the Secretary, and some of the proposed technical corrections would limit this discretion to some extent. Examples of more substantive changes in commodity provisions of the House bill include the following:

1. Planting alternative crops (industrial and other crops such as castor beans and mung beans) on 0/92 and 50/92 acreage would be permitted. The 1990 act left this decision to the discretion of the Secretary. Also, under the 0/92 program for wheat and feed grains, acreage devoted to authorized crops could subsequently be planted to other crops, such as soybeans, in the same crop year. In the case of 0/92 acreage double-cropped with soybeans, however, the House bill would limit this authority to farms with an established history of double-cropping during 3 of the past 5 years. The restriction would remove incentives to double-crop acreage that had not been previously double-cropped.
2. A preliminary rice program announcement would have to be made no later than December 1 of the calendar year preceding harvest. This would give producers an extended period to evaluate their participation and planting decisions, in light of planting flexibility decisions. Currently, the rice program must be announced by January 31 of the harvest year.

3. Combined corn and sorghum permitted acreage would be established for 1992-95 crops. For each crop year, the combined acreage planted to corn and sorghum would be prorated, based on the ratio of each crop's acreage base to the sum of corn and sorghum base acreage established for the year. This change would allow producers to plant these crops in whatever mix they choose. Program payments would be based on historical plantings rather than current year plantings.

4. Technical corrections would make the entire projected wheat, barley, and oats deficiency payments after the first 5 months of the marketing year. Under the formula in the 1990 act, producers receive 75 percent of the estimated annual payment after the first 5 months of the marketing year are over. The payment is reduced by any advance payment that may have been made, and the balance is paid after the end of the marketing year.

5. Up to 20 percent of a farm's program crop acreage base could be planted to dry peas, lentils, alfalfa, mung beans, and high-crucic oilseeds. The 1990 act generally prohibits the planting of these crops on flex acreage. [Harry Baumes and Robert Green (202) 219-0689] AO

## ERS-NASS Video Tapes

### ERS: Economic Research for American Agriculture

An historical account of the role of economic research in the success of American agriculture. 7/85.

16 1/2 minutes.

Order No. VT001 \$15.00

### Today and Tomorrow

The U.S. Department of Agriculture's Outlook program analyzes the current situation for U.S. and world crops, and provides a forecast of future supplies and prices. "Today and Tomorrow" is an overview of the USDA Outlook program from its beginning in the 1920's, to the current comprehensive program of research and analysis. 3/86.

23 minutes.

Order No. VT002 \$15.00

### The Need To Know

Begins with a futuristic "what if?" opening, and then proceeds to outline the history, significance, and contributions of agricultural statistics and USDA's National Agricultural Statistics Service. 6/88.

23 minutes.

Order No. VT003 \$15.00

### Your Hometown

"Your Hometown" is an informative and entertaining look at small town rural America. Originally seen on public television stations nationwide, and narrated by James Whitmore, the program focuses on three rural communities where citizens use innovative thinking and teamwork to revitalize their own towns. 2/88.

1 hour.

Order No. VT004 \$15.00

### Alternative Agriculture: Growing Concerns

Can U.S. farmers produce at a profit while practicing low-input, sustainable agriculture (LISA)? "Growing Concerns" investigates the benefits and drawbacks of LISA. An excellent overview, this documentary was originally seen as a five-part series on national television. 1/89.

19 minutes.

Order No. VT005 \$15.00



## Special Articles



## Central Europe: Agriculture in the New Market Economies

**C**oncluding a two-part series, AO looks at the transition to market-oriented agriculture in Central and East European countries (CEE's). Part I examined changes and developments in Poland, Hungary, and Czechoslovakia, while Part II focuses on the Balkan states--Yugoslavia, Bulgaria, Romania, and Albania.

Past and present political events in the Balkan states make economic reform all the more challenging. Yugoslav farmers are caught up in civil unrest that reflects long-standing ethnic and national rivalries; Bulgaria is forging ahead with agricultural reform despite precious little experience with private operation in over four decades; Romanian farmers are attempting to rebuild the country's self-sufficiency in agriculture after the damaging policies of the Ceausescu regime; and Albania is overcoming 40 years of isolation from the rest of Europe and preparing to enter the community of developed countries.

As in other CEE's, agricultural profits are suffering as the countries undergo the painful transformation from centrally planned to market-driven economies.

### Yugoslavia-- Reforms Amidst Civil Strife

Yugoslavia is officially a confederation of republics composed of major South Slav ethnic groups including Serbs, Croats, Macedonians, and Slovenes, as well as a number of national minorities that include Albanians and Hungarians. The population approximates the combined size of New York state and New Jersey--about 24 million persons. Roughly 22 percent of the labor force is engaged in agriculture, and 27 percent in mining and manufacturing.

Yugoslav territory covers an area of nearly 98,800 square miles, making it the largest country in the Balkans and the ninth largest in Europe. It is nearly 600 miles long, with the central portion of the country almost 300 miles wide. The republic of Serbia makes up 35 percent of Yugoslavia's territory and Croatia 22 percent.

Agricultural land covers 57 percent of total area. Although nearly three-fourths of the agricultural land is arable, only 2 percent of arable land is irrigated. The Pannonian Plain, an agriculturally rich lowland area in the north, produces at least 30 percent of the country's grain.

### Central and Eastern Europe:<sup>a</sup> Common Borders, Unique Challenges





Grains Dominate CEE Agriculture <sup>1</sup>

	Bulgaria	Romania	Yugoslavia	Albania	Total CEE's
			1,000 metric tons		
Wheat	5,300	7,000	6,530	450	40,680
Corn	2,200	8,500	12,000	400	30,880
Barley	1,470	3,000	700	35	14,522
Rye	45	70	72	12	9,522
Total grains	9,107	18,859	19,597	927	102,365
Oilseeds	465	686	577	5	4,206
Meat & poultry	796	1,255	1,468	NA	9,470
Potatoes <sup>2</sup>	538	4,420	2,858	NA	46,202
Sugar	80	334	885	14	4,413
Fruits & vegetables <sup>2</sup>	2,025	5,307	5,040	NA	24,700

NA=not available.

<sup>1</sup> 1991 output. <sup>2</sup> Production in 1989 from Country Yearbooks, 1990.

Source: USOA

Despite the 21 rivers that flow through Yugoslavia, each longer than 100 miles, their energy, transport, and agricultural potential has not been realized. Moreover, drought and flooding are frequent. Except for the northern plains and a few major river valleys, the country is dominated by mountainous territory stretching from the northwest to the southeast along the eastern shores of the Adriatic Sea.

Yugoslav investment policy has not been especially supportive of agriculture. Agriculture's share of investments has been and still is low. The return on agricultural investment is generally lower than the average return in other sectors of the economy, partly because of low prices for agricultural products. Throughout the 1970's and 1980's, the Yugoslav government used foreign credit largely to develop the Adriatic coast's tourist industry in hopes of generating foreign currency earnings.

The socialized sector of agriculture has been made up of about 2,700 "kombinats," vertically-integrated enterprises that oversee every stage of production from farm to retail. Profits of the kombinats were severely curtailed by soaring interest payments and high debt to federal banks during the past 5 years.

However, for most of Yugoslavia's postwar history, the private sector dominated Yugoslav agriculture. In contrast with most other CEE's, about 70 percent of the land is already in private hands, and the number of socialized farms continues to decrease. The majority of socialized farms are about 125 acres, but some large estates are over 12,000 acres.

Since the early 1950's, following an unsuccessful attempt at complete nationalization of land, the Yugoslav government has allowed private ownership of arable land up to 25 acres. This maximum was based on what a single family was considered able to cultivate without hiring additional help. Most small family farms are 5 acres or less. In 1990, maximum private ownership was abolished, and legislation is currently being considered to return land confiscated from private individuals and churches after World War II.

Over the past few years, agricultural production has been relatively stable, dominated by cereal production (24 percent of agricultural output) and by livestock, including cattle (21 percent of output), hogs (14 percent), and poultry (10 percent). Industrial crops and vegetables contribute another 18 percent to total output.

Yugoslavia is the third-largest grain producer of the CEE's, following Poland and Romania, with annual production averaging around 16 million tons over the past 5 years. It is one of the highest corn producers of the CEE's, averaging over 9 million tons annually. But Yugoslavia is the smallest producer of barley among the CEE's, except for Albania, averaging 653,000 tons during the past 5 years. Wheat yields are fairly high at 63 bushels per acre, as are barley yields at 51 bushels, but corn yields are low, averaging around 66 bushels.

The summer of 1991 saw a record grain crop in Yugoslavia, in contrast to the output following 1990's disastrous drought. The wheat harvest reached a record 6.5 million metric tons in 1991. Although farmers welcomed the large wheat harvest, they now face difficulties in transporting and selling the grain.

Among the most serious effects on agriculture during the current Yugoslav political and ethnic struggles has been the increased cost to producers for inter-republic shipping, as well as for export of commodities. The higher costs are due to taxes imposed by the individual republics, and unreliable transportation as military skirmishes escalated.

The predominantly agricultural province of Voivodina in north Serbia, given its proximity to the areas of military conflict, has been particularly affected by the fighting that intensified throughout the summer months. Voivodina's farmers cannot be guaranteed that their goods will arrive safely to designated areas through inter-republic routes. In addition, sporadic confiscation of goods as they move across republic borders makes it even harder for surplus grain to be distributed to buyers. Previous transportation routes to Western Europe have been

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rerouted through Hungary, but this involves the added expense of duties imposed by the Hungarian government.

Before the harvest in mid-July, the Federal government announced austerity measures that eliminated traditional price supports for Yugoslav agriculture, as well as bank compensation for individual farmers' debts. But with the recent grain surplus, the government has agreed to set aside over \$1 billion in new credits to provide support for 60 percent of the estimated value of the 1991 harvest.

In addition to receiving Federal aid, grain producers are actively looking for buyers who are able to purchase the grain surplus, especially with convertible currency. Yugoslavia plans to export at least 1 million tons of grain with a 40-percent price subsidy this year. The Soviet Union reportedly has already contracted for delivery of at least 300,000 tons. If Yugoslav farmers can manage the successful export of grain, they would earn foreign currency that is badly needed for purchasing agricultural equipment as well as other farm inputs.

### **Bulgaria-- Forging Ahead With Reform**

Bulgaria's location near water transport points provides it with a number of natural advantages. Bulgaria borders Romania to the north, Turkey and Greece to the south, Yugoslavia to the west, and the Black Sea to the east. Bulgaria is not a large country--only slightly larger than the state of Tennessee (42,683 square miles or 27.3 million acres).

With 1990 GNP of \$43 billion--about the size of Iowa--Bulgaria had the lowest GNP of the CEE's, except for Albania. Its population of 8.9 million inhabitants is the second smallest of the CEE's, but the country has over 200 inhabitants per square mile, compared with the U.S. average of 70 inhabitants per square mile.

Two mountain ranges and two major rivers divide the country geographically and by commodities produced. The Balkan Mountains stretch west to east, trailing the Transylvanian Alps in Romania. To the north of the Balkan Mountains lies the granary of Bulgaria--the Danubian Plateau.

The second mountain range--the Rhodope Mountains--lies in the southwestern corner of Bulgaria. Vegetable and fruit production is concentrated in the Thracian Plain, the valley north of these mountains and south of the Balkan range. The Danube River is the major source of irrigation and transportation for the Danubian Plateau, and the Maritsa River for the Thracian Plain.

Agriculture covers a large portion of Bulgaria's land. Of the 27.3 million acres in Bulgaria, 53 percent is agricultural, over two-thirds of which is cultivated. Besides grains, the Danubian Plateau supports other food and fodder crops. Closer to the Balkan foothills, orchards dot the landscape, while reed and licorice grow wild in the areas nearest the Danube River. The

Thracian Plain's natural vegetation--mid-latitude forest and Mediterranean flora--has been replaced by truck vegetables, fruit orchards, berries, vineyards, cotton, and tobacco.

Wheat, corn, and barley are the most abundant Bulgarian crops, planted on over 50 percent of arable land. Other key crops include sugarbeets, alfalfa, sunflowerseeds, tobacco, fruits, and vegetables. Bulgarian wheat yields of 64 bushels per acre in 1990 were almost 65 percent higher than the U.S. average. By contrast, typical Bulgarian corn yields of 63 bushels per acre were 46 percent lower than the 1990 U.S. average. Barley and cotton yields in Bulgaria were 25 to 60 percent higher in 1990 than in the U.S., while sunflowerseed yields in the two countries were similar.

Nearly 13 percent of the population is employed in agriculture, which shares the labor-intensive character of CEE agriculture. There are 62 workers but less than six tractors per 1,000 acres in Bulgaria.

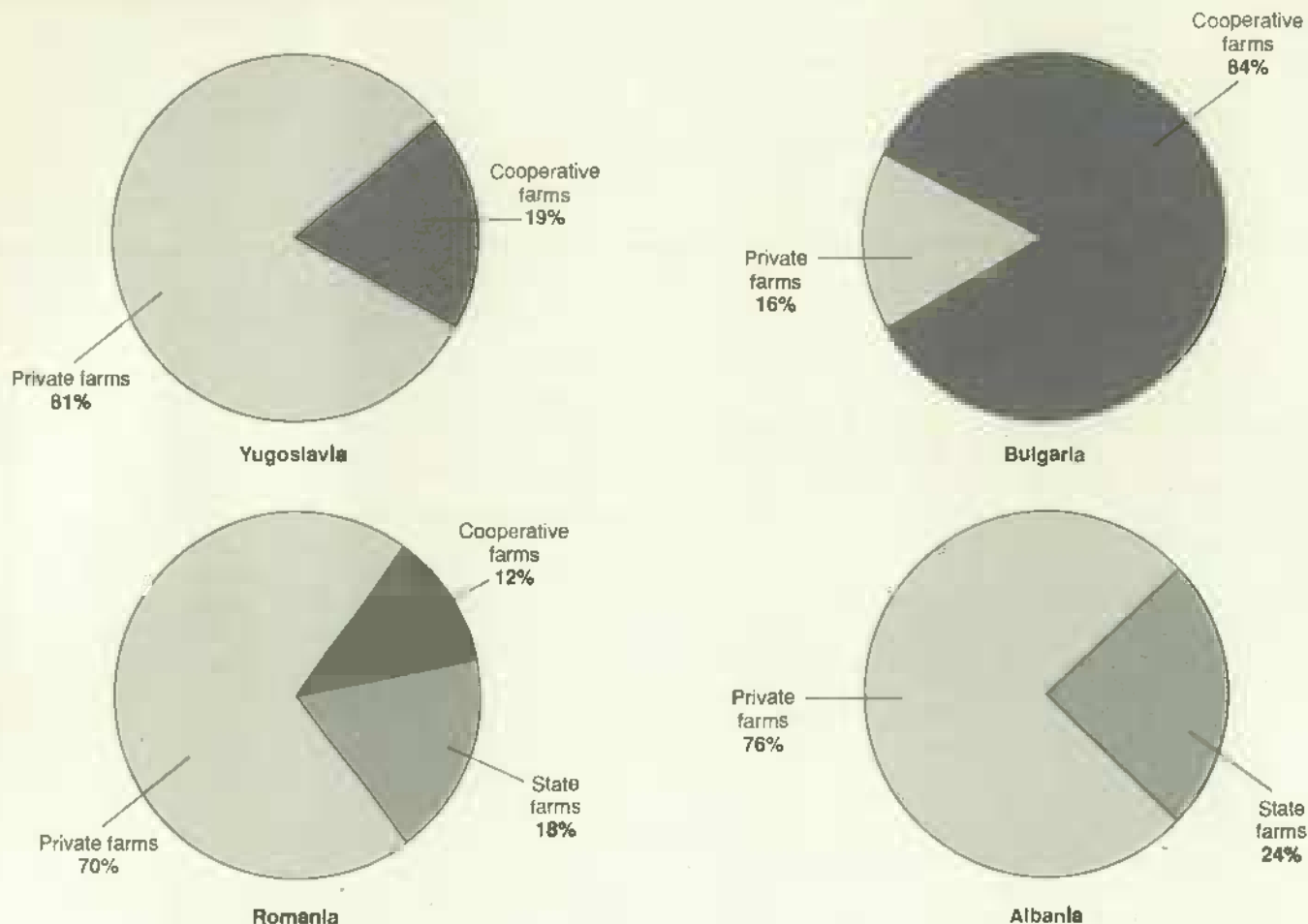
Land collectivization after World War II was extensive; virtually all agricultural land came under state and cooperative control. Since the formation of state and cooperative farms, Bulgaria reorganized the structure of its farm sector several times. In the early 1970's, state and cooperative farms were consolidated into huge agro-industrial complexes, averaging 24,000 acres with several thousand workers, and comprising 84 percent of total agricultural land. The remaining 16 percent of agricultural land was allocated for private operation (but not ownership) in small plots of 1-2 acres. Only 1 percent of total agricultural land is actually privately owned.

Beginning in 1986, the agro-industrial complexes were gradually broken up into much smaller components. With land reform in the forefront of agricultural change, the agro-industrial complexes have been disbanded altogether and await claims from previous owners.

After a slow start, Bulgaria is forging ahead to establish itself in the forefront of change along with Poland, Hungary, and Czechoslovakia. In spring 1990, while the other CEE's (excluding Albania) were ousting communist leaders and establishing democratic governments, Bulgarians initially used the ballot to re-elect their communist officials. This led observers to doubt that Bulgaria was on the road to reform. But in October 1991, the Bulgarians elected a democratic government.

Agricultural policy reform in Bulgaria has cut farm profits. In February 1991, almost all producer and consumer prices were decontrolled, leading to declines in producer prices and rising consumer prices. With a decline in demand, producer prices fell relative to other prices. Despite the general liberalization, by July 1991 the government provided support for farmers by establishing minimum producer prices for pigs, poultry, calves, and milk, and minimum export prices for calves, lambs, pigs, meat and cheese. Ceilings were shortly placed on some consumer prices in response to high inflation.

## Most Farms in Bulgaria Are Still Collectivized



Structure of land ownership, 1991.

However, the real economic picture for Bulgarian farmers is seen in the relative input and output prices. Input suppliers and output purchasers are still acting in a monopolistic fashion. Input prices have risen dramatically while procurement prices paid to farmers have risen more slowly. Thus, the short-term impact of price liberalization has been to decrease net returns to farmers and reduce incentives to produce.

Area sown to spring crops of corn, soybeans, and potatoes in 1991 was down as much as a third from 1990. Vegetable production is reported down 37 percent from a year earlier. Animal numbers, and milk and egg production are also reported lower.

So far, the combination of reduced supply and a fall in demand because of lower incomes has averted shortages. To ensure full shelves this winter, however, Bulgarian officials have set

restrictions on exports of some basic agricultural commodities, such as bread, coarse grains, sunflowerseeds, and vegetable oils. Other measures include a surtax of 15 percent for most imports, and minimum export prices to discourage livestock sales to foreign buyers.

The foreign trade sector has undergone significant reform in the past year. And, while many of the changes are trade enhancing, the economic and political disruption in the region, including the Soviet Union, has put strong downward pressure on Bulgaria's exports as it has for other CEEs'. Bulgaria has historically been closely tied to the Soviet Union, but is making new efforts to attract the interest and investment of Western countries.



## Special Articles

## Romania-- Recapturing Agricultural Productivity

Romania borders the Black Sea to the east, Bulgaria to the south, Yugoslavia and Hungary to the west, and the Ukraine and Soviet Moldavia to the north. The third-largest CEE with an area of 91,699 square miles (58.7 million acres), Romania is about the size of Oregon or Wyoming. But its 23 million inhabitants make it one of the most densely populated CEE's, with 253 persons per square mile.

Romania's GNP in 1990 was estimated at \$94 billion, the fourth largest among CEE's, with per capita GNP at \$4,043. Over half the population is urban, and about 20 percent of the population is engaged in agriculture.

Sixty-two percent of Romania's land is agricultural (36.4 million acres). Over 23 million acres are arable, and approximately 13.5 million acres are planted to cereal crops. Romanian agriculture is labor intensive, with approximately 100 workers--but only seven tractors--for every 1,000 acres.

The Carpathian Mountains and the Transylvanian Alps, along with the Danube and Prut Rivers, define the major agricultural areas of Romania. In southern Romania, between the Transylvanian Alps and the Danube River, lies Walachia--the breadbasket of Romania--which provides half the annual grain harvest and roughly half the fruit and grapes.

To the west of the Carpathians and north of the Transylvanian Alps is Transylvania, with poor soils and rough terrain restricting large-scale mechanized farming. Livestock production dominates in the mountains of Transylvania, while potatoes and some grains are grown in the central basin.

The major grains planted in Romania are corn, wheat (predominantly winter varieties), and barley. Corn and wheat area comprise over half of all arable land and 90 percent of land planted to grains. Important nongrain crops include hay and silage, sunflowers, potatoes, soybeans, and sugarbeets.

Crop yields in Romania vary considerably--especially compared with those in the U.S. For example, corn yields at 47 bushels were about 40 percent of the 1990 U.S. corn yield, while soybean yields at 11 bushels per acre were less than a third of 1990 U.S. yields. On the other hand, Romania's wheat yields of nearly 53 bushels per acre, and barley at 55 bushels, were almost 20 percent higher than U.S. yields in 1990. Sunflowerseed yields are about equal in the two countries.

The transformation from centrally planned to market economy in Romania is especially challenging because of the economic policies of former President Ceausescu during the last 20 years. Ceausescu's economic policy was an extreme example of the East European communist emphasis on industry over agriculture. Rural villages were literally destroyed in order to force people into urban industrial areas.

During the 1920's and 1930's, before communist rule, Romania's abundant production enabled it to export agricultural products to the rest of Europe. But by the 1970's and 1980's, Romania could scarcely feed its own people.

Wherever possible, Ceausescu and his predecessors consolidated land into large state and cooperative farms. By 1990, 73 percent of agricultural land had been collectivized into cooperative farms, and 18 percent into state farms, leaving only 9 percent under private ownership. At an average size of over 12,000 acres, state farms had priority access to machinery, chemicals, and irrigation. Workers on cooperative farms, which averaged over 7,000 acres, owned their own land and certain basic equipment, but these farms had little more autonomy than the state farms.

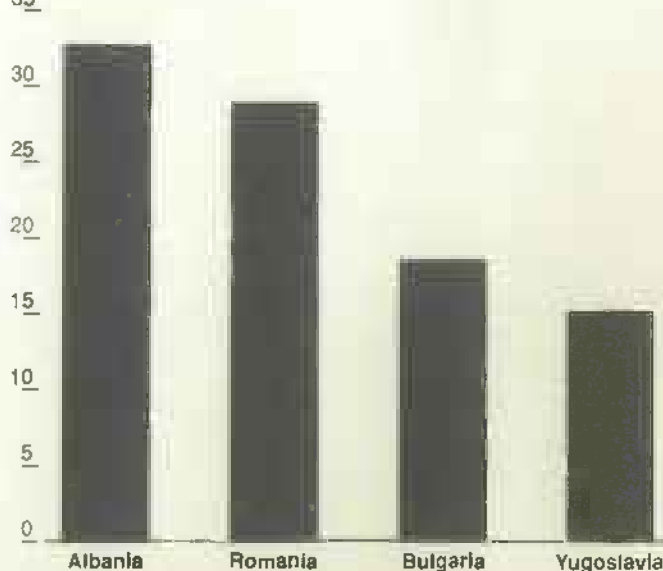
Private farms, on the other hand, were usually less than 1 acre and located in relatively inaccessible mountainous regions where use of heavy machinery was impractical. Nevertheless, productivity on this land had higher yields per acre than cooperative and state-operated land.

In addition to the 9 percent of agricultural land under private ownership, about 8 percent of land on cooperative farms was reserved for individual farming needs, so that 15 percent of total agricultural land was effectively under private, rather than state, control.

Privately operated land yielded four times more fruit output per acre than state farms, and had significantly higher yields in grain, milk, beef, pork, and vegetable production. Data from 1987 show that 50 percent of sheep meat, 40 percent of beef,

### Agriculture Remains a Large Sector in the Balkan Economies

Percent of 1990 GNP



Source: PlanEcon, July 1991.

## Land Reform Challenges The CEE's

### Bulgaria

The scope of land reform in Bulgaria is still somewhat narrow. A Law for Agricultural Land Ownership and Use was passed in February 1991. The main provision is to return land to original owners or their heirs as indicated in the 1946 Agrarian Reform Law.

Land ownership is limited to 20 hectares (49.4 acres) in "intensive" areas of cultivation and 30 hectares (about 74 acres) in hilly or mountainous areas. To prevent fragmentation, the land that owners receive is not necessarily their original holding, but owners are entitled to receive plots equivalent in size and quality. The land must be used for agricultural purposes, though an owner may lease the land to someone else who will use it for agriculture. The land may not be sold for 3 years, and foreign ownership is prohibited.

An interesting development in Bulgaria's land reform process is that relatively few people (only 10 percent by late September 1991) have claimed land previously owned or held in title. This may force the government to maintain state and cooperative farms until the land is either claimed, or sold to citizens wishing to farm.

Another possible solution is settlement by landless individuals or those who would like to return to agriculture but have only small parcels of land. Municipal land commissions (set up to deal with the land reform question) may allocate land to these people from acquired stocks of unclaimed land and land purchased from individuals not interested in farming.

### Romania

Because so much of Romania's agricultural land was collectivized into state or cooperative ownership, land

reform has become a key agricultural issue. Romania's post-communist land law, passed in February 1991, did not focus primarily on the restitution of previous owners' specific land parcels, but did acknowledge property rights of citizens whose land was incorporated into cooperatives.

Through an intricate set of guidelines, each claimant is to be compensated with land up to 10 hectares (24.7 acres). Restrictions were established on selling, farming, foreign ownership, and family plot size. In addition, those whose land was confiscated for state farms will become shareholders in new agricultural joint stock companies, which have replaced the old state farms. Land not claimed will be forfeited to the state.

The intent of the law is to encourage landowners back into cooperative farming, although with a more autonomous structure than in previous years. This may save Romania from fragmentation of farming units (as currently exists in Poland). Surprisingly enough, this land law along with Albania's new land legislation has been among the most effective in distributing land to private landowners in a timely fashion. Recent estimates indicate that almost 70 percent of agricultural land is now in private hands in Romania.

### Albania

The agricultural landscape in Albania has changed considerably since the beginning of communist rule. In 1950, 92 percent of the agricultural land was owned by the private sector, with the remaining 8 percent owned by either the state or the cooperative sector. By 1989, none was in private hands; all agricultural land was owned by the state or cooperatives.

A bill passed in May 1991 addressed land ownership, and has succeeded in distributing former cooperatively owned agricultural land for private use. Disputes erupted over redistribution, but thus far, it has been the most effective land ownership restitution bill in all the CEE countries. Currently, approximately 76 percent of agricultural land is estimated to be privately held.

28 percent of pork, and 63 percent of fruit production came from private production sources.

Throughout 1990 and 1991, Romania experienced high inflation and profitability in farming has suffered. Food prices were decontrolled in February 1990. However, this first round of price revision applied to only a small portion of available supply. On April 1, 1991, the second--and broader--round of price deregulation on agricultural commodities was instituted. Within the month, food prices rose 58.6 percent, while prices of nonfood products and services rose 5.4 and 16.1 percent.

Laws were abolished in 1990 that had required producers to sell all agricultural commodities to the state, and prices paid by the

state for agricultural products were raised 40 percent on average. Since then, more agricultural commodities have been sold in a free market, at prices higher than those prescribed by the state--products such as fruit, vegetables, live animals, and cheese. In addition, private supplies of wheat, corn, and other storable commodities have increased dramatically with the abolition of obligatory sales.

Agricultural trade was an important source of hard currency earnings to Romania both before and during communist rule, but has been a major cause of hard currency debt since Ceausescu's death. Even with lower production under communist rule, the Ceausescu government earned hard currency by selling scarce agricultural products to the West at the

## Special Articles

expense of domestic food supplies. Through these measures, the government was able to pay off all its foreign debt.

When Ceausescu fell, the interim government halted the export of food in order to improve domestic availability. In addition, imports of agricultural commodities were allowed, in order to satisfy pent-up demand for basic commodities such as sugar, coffee, and meat. In the last 2 years, Romania's agricultural trade deficit with the U.S. alone has been over \$250 million. As this winter approaches, the government is concerned again about the adequacy of food supplies. The EC and the U.S. are currently considering food aid packages.

Romanians hope that in the near future, their new freedom combined with the country's natural resources will enable the country to regain prominence in agricultural production.

### Albania-- Leaving Isolation Behind

Situated on the Adriatic coast and bordering Yugoslavia and Greece, Albania was the most isolated country in Europe and the last to relinquish communist rule. It is now attempting to become a democracy with a market-oriented economy. But 20 years of isolation will make reintegration into the community of European countries difficult.

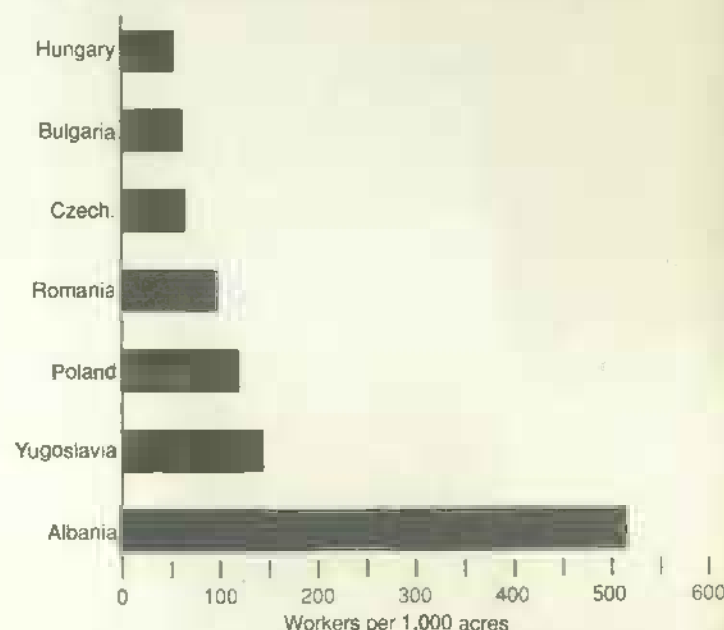
In fact, Albania's relatively high population growth of over 2 percent per year, and its large proportion of GNP in agriculture--33 percent in 1990--cast it as a less developed country rather than a developed, centrally planned economy. A relatively primitive industrial sector distinguishes Albania markedly from most of its CEE neighbors.

Enver Hoxha, Albania's Stalinist leader for 40 years, became Party First Secretary in 1944, and in 1946 proclaimed the country the People's Republic of Albania. With the help of Yugoslav communists, Albania became a tight-fisted Marxist-Leninist system modeled after the Soviet Union. Forced industrialization, political repression, and a one-party system followed. Throughout the next 44 years, Albania successively aligned itself with Yugoslavia, the Soviet Union, and the People's Republic of China.

By 1968, relations were effectively severed with the Warsaw Pact countries and China, and by 1970, Albania had retreated into self-imposed isolation. Not until after Hoxha's death in 1985 did relations with other countries begin to thaw. In the process, some political liberalization was permitted.

A railway established with Yugoslavia in 1986 (closed in 1988 following ethnic conflicts involving Albanians in Yugoslavia) brought broader contact with the "outside world." A movement toward political and economic freedom followed, culminating in March 1991 with the first free elections in over 40 years. The elected government is comprised of both communists and democrats. Albania has since reestablished ties with the U.S.

### Albania Has More Farm Workers per Acre than Other CEE's



and other countries, and in June 1991 was admitted to the Conference on Security and Cooperation in Europe.

Neither the country nor the economy of Albania is large. Its population of 3.2 million is comparable to Connecticut's, although with about 6 million acres, Albania's area is about twice the size of Connecticut. The government does not report national income, but Albanian GDP in 1990 was estimated at \$3.8 billion. That translates into about \$1,200 per capita, making it the poorest country in Europe.

As in many centrally planned economies, growth in the industrial sector was emphasized over the last 40 years and focused primarily on the manufacture of machinery and other producer goods. However, the agricultural sector still employs over 50 percent of the population.

Both agriculture and industry were fully socialized under communist rule, with 74 percent of enterprises state-owned and the remaining 26 percent organized as cooperatives. Agriculture's share of national income declined significantly from 74 percent in 1950 to 39 percent in 1960. Since then, its share of national income declined further to just under 33 percent in 1989 when the industrial sector stood at 45 percent.

With 520 agricultural workers and less than eight tractors per 1,000 acres of land, Albanian agriculture is highly labor intensive. Nevertheless, Albania has enjoyed some agricultural successes. The number of animals has increased gradually in the last three decades. Cattle and milk cows have doubled from 1960 to 1989, while poultry nearly quadrupled from 1.6 million birds in 1960 to 5.6 million in 1989.



Cultivated land increased by more than 16 percent over the last two decades and yields rose for all crops, although yields are still among the lowest in Europe. Principal crops include wheat, corn, potatoes, sugarbeets, cotton, and tobacco. Average wheat yields in 1990 were 36.8 bushels per acre—comparable to U.S. yields but much lower than other European wheat yields which average from 50 to 75 bushels. Corn yields were under 60 bushels per acre in 1990—half the U.S. average.

Although Albania's balance of payments deficit is small relative to other CEE's—about \$92 million in 1989—the deficit has led to serious economic hardship. In 1989, imports consisted mainly of machinery and equipment (28 percent), minerals and metals (26 percent), nonfood raw agricultural materials (18 percent), and chemicals (12 percent).

In normal weather, Albania is self-sufficient in food production. In recent years, however, drought in southern Europe has forced Albania to import food for its own population. With a shortage of hard currency, Albania is currently unable to import enough food to maintain previous consumption levels. The current food shortage, due both to weather and structural adjustments with reform, is leading Albania to seek help from the international community, and the EC has provided grain shipments.

Albania specializes in the export of energy, minerals, and metals. Of chief importance is the export of chromium, copper, and nickel, as well as the sale of hydroelectric power to Yugoslavia and Greece. Other important exports are food and other agricultural products, but there has been little excess for export in the last 5 years.

Socialization of property was extensive in Albania immediately after World War II. To date, some privatization and foreign joint ventures are still being discussed, while a land repatriation bill was passed in early 1991. One major area to be addressed involves safety and environmental conditions in both the industrial and agricultural sectors of the economy. As these problems are tackled, joint ventures and economic aid may be offered to Albania.

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## **1992 Outlook Uncertain In the Balkans**

Economic and political turmoil in the Balkan economies adds considerable uncertainty to the agricultural outlook for 1992 in these countries. For Bulgarian agriculture, stability in supply and demand is likely to return gradually, following the imbalances of 1991. Assuming normal weather and stable policy, production is expected to fall more into line with the recent declines in demand. This should help stabilize most commodity prices and shrink exportable surpluses.

But the outlook for Romanian agriculture in 1992 looks no brighter than 1991's performance. Decreasing consumer demand from higher prices and declining incomes is partially masking more severe food shortages. But unless significant gains are made from policies designed to restore economic stability, especially in controlling inflation, imbalances in agricultural output and input marketing will continue to result in shrinking supplies of food delivered to retail channels.

Although Romania appears to have sufficient food stocks on hand, it is appealing for food aid. This appeal is partly due to producer reluctance to sell to state procurement agencies, and subsequent stockpiling by producers. Producers' reluctance to sell their output stems from dissatisfaction with current prices and uncertainty about future inflation.

Other problems affecting food availability in Romania include a breakdown in input markets and farmer uncertainty over ownership and control of the land. Because Romanian land privatization has proceeded quickly and haphazardly, crop production has been disrupted. Severe restrictions on farmers' crop choice, and on the sale of land, are still enforced in Romania.

Yugoslavia's outlook for 1992 is clouded by the civil unrest that continues to plague the country. Farmers in key producing regions are uncertain that their output can be delivered to domestic or foreign markets. Inter-republic border trade faces rising nontariff trade barriers.

Meanwhile, the future for Albanian agriculture in 1992 is contingent on effective economy-wide market reforms and clarification of land ownership rights. Although Albania's land reform has been successful in distributing cooperative (though not state) lands to peasant farmers, the lack of available inputs and the rapid pace of change have left many farmers confused. Many of them view themselves as unemployed, rather than as new landowners. State farms and food aid from the U.S. and EC will be relied upon to meet domestic food demand and forestall further social discord. *[Jason Lamb and Danielle Sremac (202) 219-0621] AO*

## Special Articles



## The U.S. & Mexico: Interdependence Growing

**I**n many respects the U.S. and Mexico have little in common besides their border. Per capita gross domestic product (GDP) in the U.S. is 10 times Mexico's. Anglo-Saxon traditions played a predominant role in shaping U.S. institutions, while Mexico is a mixture of native and Spanish cultures. The differences combined with simple geography have bound Mexico and the U.S. in a relationship of economic interdependence that has not always been harmonious. Today the differences are also creating opportunities for greater economic integration and interdependence.

In a five-part series, *Agricultural Outlook* examines U.S.-Mexico relations. Part I provides a general overview of the history and the current state of economic relations. Parts II through V take a closer look at agricultural relations between the two countries, emphasizing trade, labor and investment, environmental issues, and the pending North American Free Trade Agreement.

### History & Culture Influence Development

Even before England and Spain colonized North America, characteristics of the native populations set the future U.S. and Mexico on different historical paths. The nomadic tribes encountered by English settlers were ultimately displaced, allow-

ing English culture to be transplanted to its North American colonies relatively intact. By contrast, the relatively settled native civilizations conquered by the Spanish in the region that became Mexico made for a difficult but inevitable mixing of cultures.

Differences between the English and Spanish cultures further separated the course of development. England was accustomed to rule by a limited monarchy with an active parliament, and separation of church and state affairs. Spain was ruled by an absolute monarchy with strong church ties. England led the industrial revolution, while in Spain the industrial revolution matured slowly and the economic structure remained largely feudal into the 20th century.

The new U.S. republic set out on a course of political stability and relatively widely distributed economic wealth. Mexico, on the other hand, was left in complete disarray after revolution set it free from Spain in 1821. A vicious cycle of political instability and economic weakness plagued the country, making it ripe for exploitation.

### Emerging Ties Broken

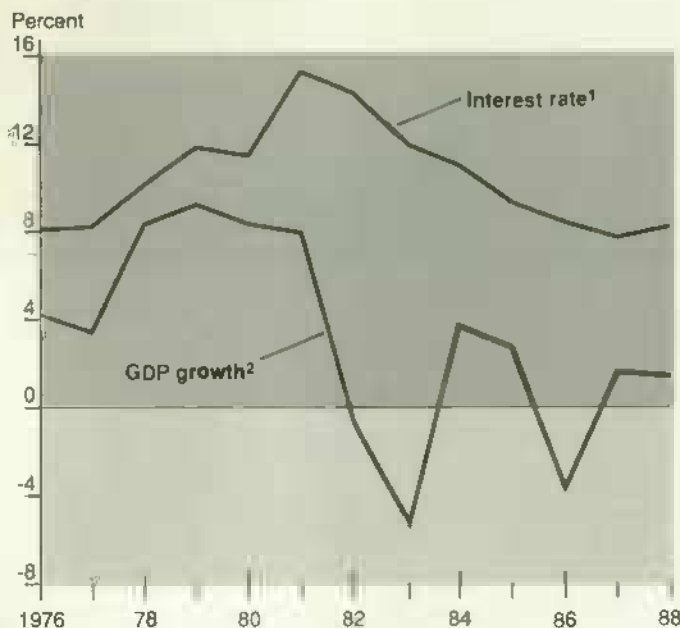
Even though the independent Mexico opened its territory for settlement to a much greater extent than Spain had allowed, sentiments of manifest destiny in the U.S. led to conflict. The U.S. encouraged secession by Texas from Mexico as a prelude to annexation in 1845, and in 1846 declared war against a much weaker Mexico. The treaty that ended the war gave the U.S. half of Mexico's territory, including California on the eve of the gold rush.

When Porfirio Diaz took power in 1876, Mexico embarked on a period of political stability and economic growth that lasted until 1910. Diaz eased restrictions on land ownership and subsoil resource use in order to attract foreign investment. Geography dictated that U.S. investors would respond the most readily. But Diaz' dictatorship was also extremely repressive and failed to distribute the benefits of economic growth widely. This was a major factor contributing to a second Mexican revolution beginning in 1910.

The U.S. & Mexico—Key Statistics Show the Differences

	U.S.	Mexico
Population (millions)	248.2	84.5
Per capita GDP (US\$)	20,756	2,375
Population in agriculture (percent)	2.5	27.6
Average age of population (years)	32.0	22.0
Education (years of schooling)	11.0	7.5
Arable land (million acres)	464.1	57.3

### High Interest Rates Dampen Mexico's Economic Growth



<sup>1</sup>Average interest rate on Mexican debt.

<sup>2</sup>1982 dollars.

After initial improvement with increased economic ties, U.S.-Mexico relations began to deteriorate again, as a series of Mexican presidents pushed for varying degrees of political and economic reform in a nationalistic environment which threatened U.S. investments. The U.S. responded with periodic diplomatic and military intervention in attempts to influence Mexican politics until Franklin Roosevelt introduced his Good Neighbor Policy. Signalling a new era of U.S.-Mexican relations was a negotiated settlement in 1938 for compensation of U.S. oil companies adversely affected by nationalization of the Mexican oil industry.

### Strengthening Relations

World War II brought increased U.S.-Mexican cooperation, as Mexico supported the U.S. war effort by supplying U.S. factories with raw materials and labor. Relations continued relatively smoothly through the 1960's, even though Mexico distanced itself from Cold War politics.

Mexico's economic policies encouraged U.S. investment to support stable Mexican industrialization. The Mexican government's goal was to free Mexico from reliance on producing a few raw materials for export while importing virtually all other goods. Public investment in communications and transportation, as well as targeted subsidies and trade protection, encouraged substitution of domestically produced goods for imported products.

### Maquiladoras--Production Sharing At the Border

Maquiladoras are assembly plants specializing in production for export. Most are located in a special trade zone along the U.S.-Mexican border, where they are able to take advantage of special provisions in the U.S. tariff schedule and in Mexican industrial policy.

Component parts are shipped from the U.S. to Mexico for assembly, with the express intention of taking advantage of cheaper Mexican labor. When re-exported to the U.S., only the value added to the goods is subject to tariffs. For its part, Mexico allows the maquiladoras to import plant equipment duty-free and exempts them from domestic content rules and limitations on foreign ownership.

In exchange for Mexican concessions, the plants were required to locate at the border until 1972. Ninety percent still remain in this location. Since the establishment of maquiladoras in 1965, the number of plants has increased from 12 to 1,441 in 1988, when employment reached 390,000 and value added equaled \$2.3 billion.

During the same year, the maquiladoras provided 25 percent of Mexico's manufactured exports on a value-added basis. Machinery and equipment account for 87 percent of Mexico's value-added production, with parts for television sets and electrical and electronic equipment, office machines, and transportation equipment the primary outputs.

Studies of the maquiladoras have found that they incorporate more U.S. components than similar assembly plants located elsewhere. And by some estimates, an increased demand for U.S. components, together with the demand for servicing the imports and exports, has created more U.S. jobs than would have existed in the absence of the maquiladoras.

For Mexico, the maquiladoras have undoubtedly provided jobs and foreign exchange. However, they have not lived up to expectations that the maquiladora border region would become more firmly integrated with the Mexican economy, with greater social and economic benefits distributed among Mexican citizens.

In the early 1970's, however, increasing government intervention in Mexico's private sector and growing protectionism soured the business climate for foreign investors. An economic crisis was averted by oil and natural gas discoveries in the latter half of the decade.

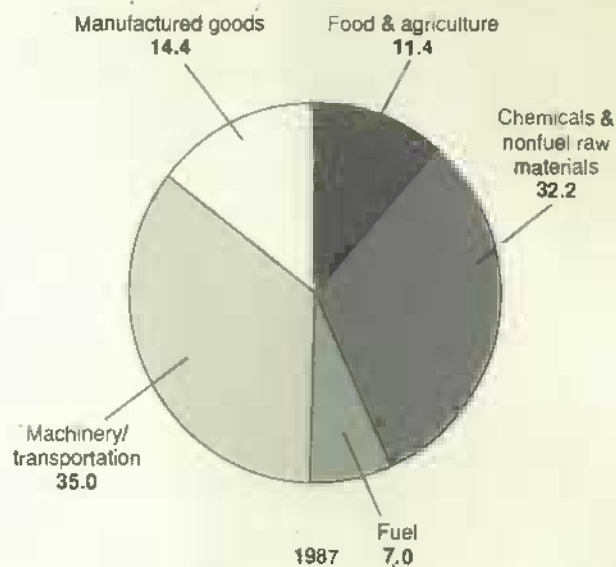
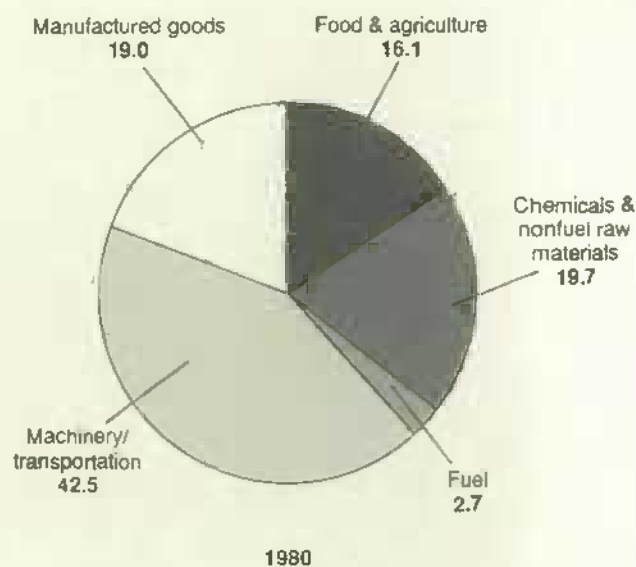
The resulting optimism for Mexico's future generated large-scale development projects financed through foreign borrowing. At the same time, the U.S. found its fortunes also heavily tied to oil, but with a different result. The combination of



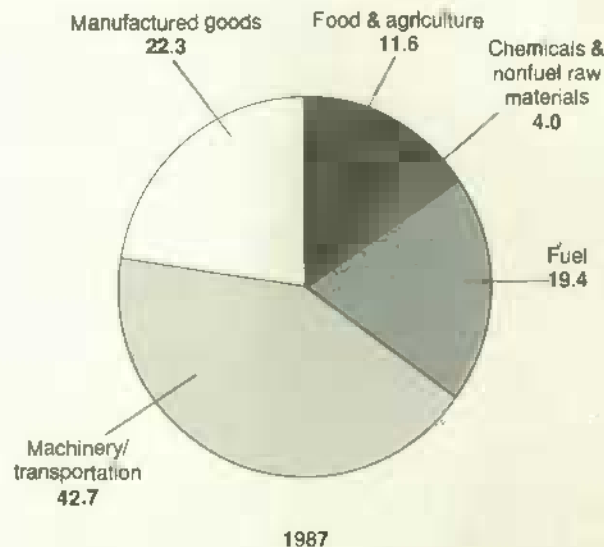
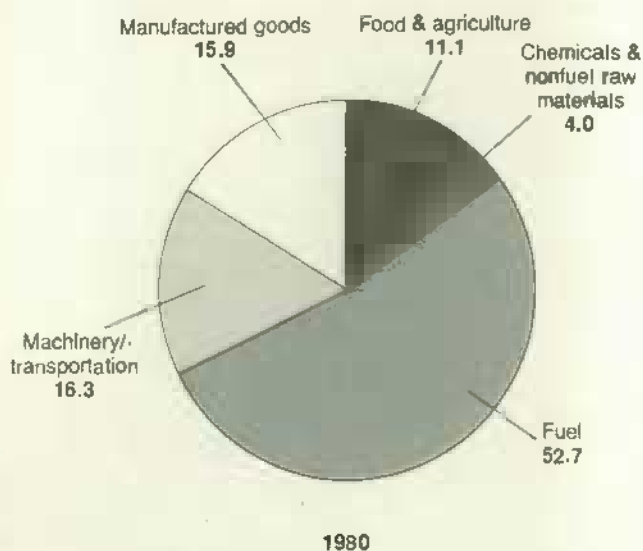
## Special Articles

### Mexico Is Exporting More Machinery and Manufactured Goods to the U.S.

#### Mexican Imports from U.S.



#### Mexican exports to U.S.



Share of total trade value.  
Source: Department of Commerce.

economic growth in Mexico and foreign oil dependency of the U.S. gave Mexico a new measure of independence.

Mexico's new-found confidence collapsed in the early 1980's. Lower world oil prices and high interest rates revealed the excesses of previous decades' deficit financing and foreign borrowing. The International Monetary Fund negotiated a multibillion-dollar rescue package to address Mexico's growing debt problem.

But even as Mexico's vulnerability to macroeconomic developments in the U.S. became evident, an increased reliance of the U.S. on Mexico was also apparent. As a result of Mexico's economic crisis, merchandise imports from the U.S. declined by \$8.7 billion, or 48 percent, between 1981 and 1983. The drop in Mexican imports has been estimated as equivalent to a loss of 220,000 U.S. jobs, concentrated in the manufacturing sector.

Recent dramatic changes in Mexican policy have refueled economic recovery and poised the country for further integration with the U.S. The Mexican government has committed the economy to market-oriented reforms, including reductions in trade barriers, sale of public enterprises, and deregulation.

Success is evidenced by rising output and investment, and declining inflation. In addition, the ratios of debt and the government deficit to Mexico's gross domestic product fell. Mexico's new openness has led it into negotiations with the U.S. and Canada for a North American Free Trade Agreement (NAFTA).

### ***Asymmetry Remains, Ties Strengthen***

In the past, the asymmetric relationship arising from divergent histories has most often been reflected in patterns of U.S.-Mexican trade and investment. More recently, differences involving environmental protection and migration are also emerging.

The asymmetry in trade between the U.S. and Mexico is most apparent in the patterns of exports and imports. Even though Mexico is the third-most-important export market and the fourth-most-important source of imports to the U.S., only 5 percent of U.S. exports flow to Mexico and only 4 percent of U.S. imports originate in Mexico. On the other hand, 78 percent of Mexican exports are destined for the U.S., and 74 percent of Mexican imports originate in the U.S.

Two-way trade between the U.S. and Mexico is dominated by machinery and transport equipment. In addition, petroleum and petroleum products flow from Mexico to the U.S., while chemicals and plastics are exported to Mexico from the U.S. Foodstuffs make up approximately 10 percent of each country's trade with the other.

Changes in the composition of U.S.-Mexican trade signal increasing integration with the U.S. economy. Declines in Mexican imports of consumption goods and capital have been accompanied by a rise in imports of intermediate or component goods—to 72 percent of total Mexican imports. Correspondingly, Mexican exports of manufactured goods have risen to 48 percent of total exports, while the proportions of agricultural and oil exports have fallen.

Behind these statistics lies a shift toward "production sharing" between the U.S. and Mexico. With production sharing, component parts produced in the U.S. are exported to Mexico, where they are further processed and often re-exported to the U.S.—hence the increase in Mexican imports of intermediate goods and in Mexican exports of manufactured goods.

### **Reducing Mexican Dependence on Oil Revenues**

Prior to the late 1960's, Mexico was a net exporter of oil. During the late 1960's and early 1970's, however, the country's demand outstripped supplies, and Mexico reverted to a net oil importer. Then, discoveries of vast oil resources in southern Mexico's Tabasco-Campeche Basin in the late 1970's returned Mexico to its earlier position as a net exporter of oil.

Crude oil exports increased more than 300 percent as production rose by 98 percent between 1977 and 1980. Dramatic increases in oil prices during this period sent export revenues skyrocketing. From \$1 billion in 1977, Mexico's petroleum export revenues rose to \$10.4 billion in 1980.

However, the oil discoveries also led to concerns that Mexico might become too dependent on oil exports or on a single market for its export revenues. Of chief concern was its reliance on the U.S. as a major source of demand for Mexican oil.

As a result, PEMEX, the government entity which holds a monopoly over Mexico's petroleum resources, was directed to curb production and exports beginning in 1980. Daily crude oil production was limited to 2.5-2.7 million barrels, and exports to approximately 50 percent of production. PEMEX could not sell more than half of Mexico's oil exports to any individual country, nor could PEMEX supply more than 20 percent of a country's oil imports. In addition, foreign exchange earnings from oil exports were limited to 50 percent of Mexico's total foreign exchange earnings.

Mexico was successful in two of its goals. Production has been curtailed, and Mexico has successfully met the 50-percent limit on the share of total oil exports sold to a single market. Sales to the U.S. dropped from an average of over 80 percent in the late 1970's to approximately 50 percent of total Mexican oil exports by 1981. Mexico has broadened its markets, increasing shipments to Europe and Japan.

Achieving the goal of reduced reliance on oil exports for foreign exchange took longer. In 1981, oil trade accounted for 75 percent of Mexico's total export revenues. Not until 1986 did this figure dip below the 50-percent target.

## Special Articles

The arrangement makes more efficient use of Mexican labor and U.S. capital and production processes. In the automobile industry, for example, production sharing has led to assembly of engines in Mexico employing U.S. components and technology. The engines are then exported back to the U.S. for final assembly into automobiles.

Mexico also depends on the U.S. for more than two-thirds of its direct foreign investment. U.S. direct investment in Mexico doubled between 1987 and 1990, but still accounts for only 2 percent of total U.S. foreign investment.

U.S. investment is heavily concentrated in manufacturing, and closely associated with the production sharing process. As far back as 1979, more than half of U.S. manufacturing imports from Mexico were intracompany or related-party sales, and this proportion is growing.

U.S. investment is also aimed at taking advantage of expansion in Latin American markets resulting from economic and population growth. The U.S. economy becomes more closely integrated with Mexico's as U.S. capital invested in Mexico facilitates the combination of U.S. technology and components with Mexican labor to supply both the U.S. and Latin American markets.

### ***Migration & Environment Will Affect Future Relations***

U.S.-Mexican relations in the 1990's will be defined in part by the way in which the two countries deal with migration and environmental issues. Mexicans emigrate to the U.S. primarily for economic reasons, but benefits accrue in both economies.

#### **For more on the relationship between the U.S. and Mexico, try:**

Daniel Levy and Gabriel Székely. *Mexico: Paradoxes of Stability and Change*. Westview Press, 1987.

W. Dirk Raat and William H Beezley, editors. *Twentieth-Century Mexico*. University of Nebraska Press, 1986.

Sidney Weintraub. *A Marriage of Convenience: Relations Between Mexico and the United States*. Oxford University Press, 1990.

Mexicans employed in the U.S. relieve unemployment pressures within Mexico, as well as strengthening Mexico's balance of payments by sending wages home. While of far less significance to the U.S. economy, migrating workers from Mexico provide labor to firms that would not otherwise attract workers at the given wage.

Recent estimates of legal immigration from Mexico to the U.S. range between 50,000 and 75,000 persons each year. The flow of undocumented Mexicans remaining in the U.S. each year is estimated at 50,000-160,000 persons. The undocumented workers are most often males, and 80 percent are less than 30 years of age. Their employment is scattered across each sector of the economy--agriculture (17 percent), manufacturing (35 percent), construction (11 percent), and services (37 percent)--although their total numbers amount to less than 3 percent of the U.S. labor force.

Until 1986, the degree of Mexico's labor market interdependence with the U.S. fluctuated with U.S. domestic economic conditions, but generally grew. This growth was fostered by population and economic pressures in Mexico and the tacit consent of the U.S., which declared employment as illegal for undocumented workers but not for their employers.

Responding to labor union pressure, the U.S. has since passed legislation making it illegal to employ undocumented workers, but the impact of the legislation is not yet clear. However, the existence of a 2,000-mile common border and Mexican objections to the new U.S. legislation suggest a need for greater cooperation to address the migration issue.

Mexico's less stringent environmental regulations and inadequate resources for enforcement have led to water quality problems with cross-border implications. Examples include the salinity of the Colorado River and inadequate treatment of wastewater before release into the Rio Grande and the Tia Juana River. Serious air pollution problems exist in the population centers at San Diego, California-Tijuana, and at El Paso, Texas-Ciudad Juárez. Improper disposal of hazardous wastes by both U.S. and Mexican entities on the Mexican side of the border is causing further damage.

One example of institutional cooperation on surface water quality is the International Boundary and Water Commission, which has operated on both sides of the border with U.S. and Mexican personnel since 1932. However, conflicting regulations in the four border states and Mexico have hampered efforts to settle on appropriate cooperative action on groundwater contamination and hazardous waste disposal. At the same time, environmental problems at the U.S.-Mexico border are making it clear that interdependence between the countries is especially significant in this area. [Ann Hillberg Seizinger (202) 219-0630] AO



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# Statistical Indicators

## Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1990	1991					1992		
	Annual	I	II	III	IV F	Annual F	I F	II F	Annual F
Prices received by farmers (1977=100)	150	146	152	149	141	148	143	—	—
Livestock & products	170	167	165	159	157	163	158	—	—
Crops	128	124	136	137	125	132	128	—	—
Prices paid by farmers, (1977=100)									
Production items	171	173	175	173	173	174	—	—	—
Commodities & services, interest, taxes, & wages	184	188	190	189	189	189	—	—	—
Cash receipts (\$ bil.) 1/	169	162	171	174	167	166-171	—	—	—
Livestock (\$ bil.)	90	87	84	87	90	85-89	—	—	—
Crops (\$ bil.)	79	75	87	87	77	79-83	—	—	—
Market basket (1982-84=100)									
Retail cost	134	137	139	137	—	—	—	—	—
Farm value	114	109	109	105	—	—	—	—	—
Spread	144	153	154	154	—	—	—	—	—
Farm value/retail cost (%)	30	29	28	27	—	—	—	—	—
Retail prices (1982-84=100)									
Food	132	136	137	136	137	137	—	—	—
At home	132	136	137	135	136	136	—	—	—
Away from home	133	136	137	139	141	138	—	—	—
Agricultural exports (\$ bil.) 2/	40.1	11.3	8.8	8.4	—	37.5	—	—	—
Agricultural imports (\$ bil.) 2/	22.5	5.6	5.5	5.3	—	22.5	—	—	—
Commercial production									
Red meat (mil. lb.)	38,608	9,465	9,636	9,985	10,339	39,425	9,792	10,202	40,957
Poultry (mil. lb.)	23,635	5,837	6,298	6,460	6,340	24,932	6,090	6,515	25,845
Eggs (mil. doz.)	5,660	1,418	1,416	1,437	1,462	5,732	1,435	1,425	5,770
Milk (bil. lb.)	148.3	37.5	38.6	36.3	36.2	148.6	37.5	38.7	148.9
Consumption, per capita *									
Red meat and poultry (lb.)	210.8	50.9	53.3	54.6	56.8	215.6	52.8	55.3	222.5
Corn beginning stocks (mil. bu.) 3/	1,930.4	1,344.5	6,940.3	4,788.0	2,992.0	1,344.5	1,520.9	—	—
Corn use (mil. bu.) 3/	8,113.4	2,338.1	2,151.6	1,798.3	1,472.6	7,760.6	—	—	7,725.0
Prices 4/									
Choice steers—Neb. Direct (\$/cwt) **	78.56	80.09	77.92	69.42	70-74	74-76	72-78	73-79	73-79
Barrows & gilts—7 mths. (\$/cwt)	54.45	51.50	53.34	50.85	38-42	48-50	40-46	41-47	39-45
Broilers—12-city (cts./lb.)	54.8	51.2	52.2	54.2	48-50	50-52	48-52	47-53	46-52
Eggs—NY gr. A large (cts./doz.)	82.2	85.9	70.2	77.1	75-79	77-79	72-76	69-75	72-78
Milk—all at plant (\$/cwt)	13.73	11.60	11.37	12.30	13.60-14.00	12.20-12.30	12.40-13.40	10.85-11.85	11.90-12.90
Wheat—KC HRW ordinary (\$/bu.)	3.44	2.81	3.00	3.11	—	—	—	—	—
Corn—Chicago (\$/bu.)	2.51	2.45	2.51	2.47	—	—	—	—	—
Soybeans—Chicago (\$/bu.)	5.93	5.70	5.73	5.65	—	—	—	—	—
Cotton—Avg. spot 41-34 (cts./lb.)	71.3	75.4	81.0	66.7	—	—	—	—	—
	1983	1984	1985	1986	1987	1988	1989	1990	1991 F
Gross cash income (\$ bil.)	150.6	155.5	157.2	152.8	165.1	171.9	179.9	186.0	181-188
Gross cash expenses (\$ bil.)	111.0	119.0	109.3	105.0	109.8	114.5	120.8	124.2	124-129
Net cash income (\$ bil.)	39.5	36.6	47.9	47.8	55.3	57.4	59.4	61.8	54-59
Net farm income (\$ bil.)	15.3	26.3	31.0	31.0	39.7	40.6	50.1	50.8	41-46
Farm real estate values 5/									
Nominal (\$ per acre)	788	801	713	640	599	632	661	668	682
Real (1982 \$)	788	771	662	577	526	538	545	529	519

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Sept.-Nov. first quarter; Dec.-Feb. second quarter; Mar.-May third quarter; Jun.-Aug. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages, Jan.-Dec. 5/ 1990-91 values as of January 1. 1986-89 values as of February 1. 1983-85 values as of April 1. F = forecast. — = not available.

\* The pork carcass to retail conversion factor has been revised. \*\* Omaha Choice steer price has been replaced by the Nebraska Direct, 1,100-1,300 lb. Choice steer price.

## U.S. &amp; Foreign Economic Data

Table 2.—U.S.: Gross National Product &amp; Related Data

	Annual			1990		1991		
	1988	1989	1990	III	IV	I	II	III P
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	4,873.7	5,200.8	5,465.1	5,514.8	5,527.3	5,557.7	5,612.4	5,670.8
Personal consumption expenditures	3,238.2	3,450.1	3,657.3	3,693.4	3,724.9	3,742.8	3,789.0	3,841.8
Durable goods	457.5	474.6	480.3	482.3	488.5	455.3	453.7	467.4
Nondurable goods	1,060.0	1,130.0	1,193.7	1,205.0	1,216.0	1,212.7	1,221.7	1,229.5
Clothing & shoes	191.1	204.6	213.2	215.8	211.5	213.3	218.4	221.8
Food & beverages	562.8	595.3	624.7	629.8	629.4	636.7	642.8	644.6
Services	1,720.7	1,845.5	1,983.3	2,008.2	2,040.4	2,074.8	2,113.6	2,144.9
Gross private domestic investment	747.1	771.2	741.0	759.7	698.3	690.0	654.0	684.8
Fixed investment	720.8	742.9	746.1	750.7	729.2	694.1	694.0	702.3
Change in business inventories	26.2	28.3	-5.0	9.0	-30.8	-34.2	-40.0	-17.5
Net exports of goods & services	-74.1	-46.1	-31.2	-41.3	-28.8	13.5	18.1	-1.4
Government purchases of goods & services	982.5	1,025.8	1,098.1	1,102.8	1,132.9	1,141.5	1,151.3	1,145.5
1982 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	4,018.9	4,117.7	4,157.3	4,170.0	4,153.4	4,124.1	4,119.9	4,143.1
Personal consumption expenditures	2,606.5	2,656.8	2,681.8	2,696.8	2,673.8	2,663.7	2,680.5	2,705.3
Durable goods	418.2	428.0	427.4	429.5	415.8	402.9	401.4	410.4
Nondurable goods	909.4	919.9	911.1	918.4	901.2	897.1	902.2	908.7
Clothing & shoes	185.0	172.7	172.8	174.4	170.6	167.0	171.1	172.7
Food & beverages	482.2	482.9	457.4	459.4	453.8	453.5	453.3	458.0
Services	1,278.9	1,309.0	1,343.1	1,350.8	1,356.7	1,363.7	1,376.9	1,386.2
Gross private domestic investment	705.7	718.9	688.7	697.0	656.3	623.7	617.8	651.2
Fixed investment	682.1	693.1	692.3	692.3	682.7	648.6	650.9	666.3
Change in business inventories	23.6	23.8	-3.6	4.7	-26.4	-25.0	-33.3	-15.1
Net exports of goods & services	-75.9	-54.1	-33.8	-46.5	-8.8	7.1	-12.6	-32.8
Government purchases of goods & services	780.5	798.1	820.8	822.7	832.3	829.6	833.4	819.4
GNP implicit price deflator (% change)	3.3	4.1	4.1	3.7	2.8	5.2	4.5	1.8
Disposable personal income (\$ bil.)	3,479.2	3,725.5	3,948.1	3,969.1	4,001.9	4,021.3	4,068.1	4,107.7
Disposable per. income (1982 \$ bil.)	2,800.5	2,869.0	2,893.5	2,898.0	2,872.4	2,881.9	2,877.9	2,892.5
Per capita disposable per. income (\$)	14,123	14,973	15,695	15,765	15,849	15,887	16,035	16,145
Per capita dis. per. income (1982 \$)	11,368	11,531	11,509	11,511	11,378	11,307	11,343	11,369
U.S. population, total, incl. military abroad (mil.)	246.4	248.8	251.4	251.8	252.5	253.1	253.7	254.4
Civilian population (mil.)	244.1	246.8	249.2	249.8	250.4	250.9	251.5	252.3
	Annual			1990		1991		
	1988	1989	1990	Sept	June	July	Aug	Sept
Monthly data seasonally adjusted								
Industrial production (1987=100)	105.4	108.1	109.2	110.8	107.8	108.0	108.0	108.1
Leading economic indicators (1982=100)	142.7	144.9	144.0	143.2	143.9	145.5	145.5	145.4
Civilian employment (mil. persons)	115.0	117.3	117.9	117.9	116.9	118.7	116.4	117.2
Civilian unemployment rate (%)	5.4	5.2	5.4	5.7	7.0	8.8	6.8	6.7
Personal income (\$ bil. annual rate)	4,070.8	4,384.3	4,645.5	4,697.8	4,811.0	4,802.6	4,823.8	4,846.7
Money stock-M2 (daily avg.) (\$ bil.) 1/	3,069.9	3,223.1	3,328.2	3,321.8	3,402.1	3,391.8	3,392.8	3,392.3
Three-month Treasury bill rate (%)	6.69	8.12	7.51	7.38	5.60	5.58	5.39	5.25
AAA corporate bond yield (Moody's) (%)	9.71	9.28	9.32	9.56	9.01	9.00	8.75	8.61
Housing starts (1,000) 2/	1,488	1,378	1,193	1,108	1,034	1,049	1,056	1,033
Auto sales at retail, total (mil.)	10.6	9.9	9.5	10.1	9.0	9.1	8.3	8.6
Business inventory/sales ratio	1.49	1.51	1.51	1.50	1.50	1.49	1.49	—
Sales of all retail stores (\$ bil.)	137.6	145.1	150.6	152.0	152.8	153.2	152.2	153.3
Nondurable goods stores (\$ bil.)	85.3	90.8	96.0	97.7	98.4	99.1	99.0	99.1
Food stores (\$ bil.)	27.2	28.8	30.2	30.7	31.3	31.0	30.8	30.8
Eating & drinking places (\$ bil.)	13.9	14.5	15.2	15.2	16.0	15.8	18.0	15.9
Apparel & accessory stores (\$ bil.)	7.1	7.8	7.9	7.9	8.1	8.2	8.2	8.2
	Annual			1990		1991		
	1988	1989	1990	Oct	July	Aug	Sept	Oct
Foreign exchange value of the dollar								
Japanese yen per U.S. dollar	128.2	138.1	145.0	129.6	137.8	136.8	134.3	130.8
German mark per U.S. dollar	1.757	1.881	1.817	1.524	1.785	1.744	1.693	1.870
Canadian dollar per U.S. dollar	1.231	1.184	1.167	1.160	1.149	1.145	1.137	1.120

1/ Annual data as of December of the year listed. 2/ Private, including farm. R = revised. P = preliminary. — = not available.

Information contact: Ann Duncan (202) 219-0313.



Table 3.—Foreign Economic Growth, Inflation, &amp; Export Earnings

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991 F	1992 F	Average 1981-90
	Annual percent change											
World, less U.S.												
Real GDP	0.7	2.1	4.1	3.8	2.9	3.5	4.3	3.4	2.4	1.8	2.8	2.9
Consumer prices	14.7	14.1	12.2	12.3	9.8	12.1	18.8	36.3	41.1	44.5	30.1	18.5
Merch. exports	-7.7	-1.5	8.4	1.0	10.9	18.3	12.9	7.2	14.7	9.2	9.2	8.0
Developed less U.S.												
Real GDP	1.0	2.1	3.7	3.5	2.8	3.2	4.4	3.8	3.3	2.5	3.1	2.9
Consumer prices	8.4	8.4	4.9	4.2	2.5	2.8	2.9	4.3	4.8	4.1	4.1	5.1
Merch. exports	-4.4	-0.5	8.3	4.8	19.4	17.8	12.2	8.0	17.1	9.8	7.2	7.5
Developing												
Real GDP	1.0	1.8	4.5	4.3	3.3	4.0	3.8	3.2	2.8	2.9	4.6	3.0
Consumer prices	30.1	39.7	35.8	36.0	27.5	38.1	57.7	77.7	108.8	40.9	28.4	47.8
Merch. exports	-12.9	-3.3	6.4	-5.3	-5.5	19.7	14.4	19.1	9.4	3.3	9.7	3.1
Asia												
Real GDP	5.5	7.8	7.5	6.8	6.4	7.3	8.3	8.9	5.3	5.0	5.2	6.8
Consumer prices	8.0	8.4	6.9	7.8	5.5	7.3	11.4	9.8	8.1	9.1	9.2	7.8
Merch. exports	-0.5	4.6	14.8	-0.9	8.8	30.1	23.2	11.7	11.8	7.5	9.5	11.1
Latin America												
Real GDP	-1.6	-2.7	3.4	3.3	3.6	3.7	0.7	0.2	-1.0	1.0	3.3	0.9
Consumer prices	78.3	118.9	117.4	128.2	82.8	116.8	218.8	345.9	550.5	122.9	85.5	181.2
Merch. exports	-10.5	-1.5	10.2	-7.7	-17.9	13.8	14.1	12.2	9.2	2.0	9.4	2.8
Africa												
Real GDP	0.8	-1.4	0.8	4.5	2.3	1.3	6.6	3.6	1.9	2.0	2.9	1.9
Consumer prices	14.1	19.4	19.1	12.3	12.8	13.1	18.9	22.1	14.2	21.9	14.6	16.9
Merch. exports	-27.9	18.1	10.7	-13.5	-17.1	14.3	-2.7	3.5	19.7	-3.5	7.0	-1.5
Middle East												
Real GDP	-2.5	3.7	2.4	2.7	-2.8	0.3	0.9	3.2	-1.5	-3.3	8.5	0.9
Consumer prices	13.3	13.3	19.4	13.6	14.9	19.1	19.4	14.5	8.1	13.7	13.9	15.1
Merch. exports	-22.0	-23.0	-10.9	-8.0	-20.5	13.0	2.1	19.0	13.3	-7.0	13.1	-4.2
Central Europe, & USSR												
Real GDP	2.4	2.7	1.9	0.8	3.3	1.0	1.6	1.0	-7.1	-14.8	-2.4	0.8
Consumer prices	15.4	8.4	5.8	8.3	10.1	12.3	20.5	93.8	82.9	221.2	154.9	28.2
Merch. exports	8.1	3.8	1.0	-1.9	5.7	8.3	4.9	-0.9	-5.1	-8.7	3.1	2.7

F = forecast.

Information contact: Alberto Jerardo, (202) 219-0717.

## Farm Prices

Table 4.—Indexes of Prices Received &amp; Paid by Farmers, U.S. Average

	Annual			1990		1991					
	1988	1989	1990	Oct	May	June	July	Aug	Sept R	Oct P	
	1977 = 100										
Prices received											
All farm products	138	147	150	148	152	155	150	147	148	141	
All crops	126	134	128	120	138	148	153	135	138	125	
Food grains	138	158	123	101	112	108	106	111	118	127	
Feed grains & hay	120	128	123	114	122	115	113	117	116	115	
Feed grains	117	123	118	108	117	113	112	115	116	114	
Cotton	95	98	107	112	114	111	109	111	108	103	
Tobacco	132	145	149	151	153	153	153	148	160	159	
Oil-bearing crops	108	102	82	95	93	92	89	88	87	83	
Fruit, all	185	192	192	181	236	398	364	365	389	271	
Fresh market 1/	197	203	202	189	253	449	410	412	440	286	
Commercial vegetables	140	152	154	158	214	172	133	121	127	114	
Fresh market	136	144	144	152	224	163	120	106	114	98	
Potatoes & dry beans	124	166	191	119	222	188	191	132	112	107	
Livestock & products	150	180	170	170	165	163	162	158	157	157	
Meat animals	168	174	193	194	198	192	188	180	175	175	
Dairy products	126	140	141	135	117	117	122	127	132	138	
Poultry & eggs	118	137	131	133	119	120	127	125	124	123	
Prices paid											
Commodities & services											
Interest, taxes, & wage rates	170	178	184	187	—	—	189	—	—	189	
Production items	127	165	171	174	—	—	173	—	—	173	
Feed	125	138	128	124	—	—	120	—	—	123	
Feeder livestock	192	194	213	219	—	—	214	—	—	203	
Seed	150	165	165	163	—	—	163	—	—	163	
Fertilizer	130	137	131	132	—	—	136	—	—	132	
Agricultural chemicals	127	139	139	141	—	—	153	—	—	153	
Fuels & energy	167	180	204	238	—	—	186	—	—	200	
Farm & motor supplies	145	150	184	156	—	—	157	—	—	159	
Autos & trucks	215	223	231	233	—	—	248	—	—	248	
Tractors & self-propelled machinery	181	183	202	206	—	—	210	—	—	216	
Other machinery	197	208	216	220	—	—	227	—	—	230	
Building & fencing	138	141	144	144	—	—	148	—	—	147	
Farm services & cash rent	151	181	166	160	—	—	172	—	—	172	
Int. payable per acre on farm real estate debt	182	178	174	174	—	—	173	—	—	173	
Taxes payable per acre on farm real estate	147	162	157	157	—	—	162	—	—	162	
Wage rates (seasonally adjusted)	177	185	191	185	—	—	202	—	—	202	
Production items, interest, taxes, & wage rates	160	167	172	174	—	—	174	—	—	174	
Ratio, prices received to prices paid (%) 2/	81	83	82	78	80	82	79	78	78	76	
Prices received (1910=100)	832	874	684	868	694	706	685	672	675	646	
Prices paid, etc. (parity index) (1910=100)	1,167	1,220	1,285	1,289	—	—	1,299	—	—	1,302	
Parity ratio (1910=100) (%) 2/	54	55	54	52	—	—	53	—	—	50	

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities & services, interest, taxes, & wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly & will be published in January, April, July, & October. R = revised. P = Preliminary. — = not available.

Information contact: Ann Duncan (202) 219-0313.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1990						
	1988	1989	1990	Oct	May	June	July	Aug	Sept R	Oct P
<b>CROPS</b>										
All wheat (\$/bu.)	3.72	3.72	2.81	2.43	2.64	2.55	2.49	2.63	2.80	3.08
Rice, rough (\$/cwt)	8.83	7.35	6.73	5.00	7.42	7.40	7.28	7.09	7.61	7.27
Corn (\$/bu.)	2.54	2.38	2.30	2.19	2.38	2.31	2.27	2.33	2.34	2.29
Sorghum (\$/cwt)	4.05	3.79	3.75	3.55	4.11	3.89	3.96	4.01	4.10	3.91
All hay, baled (\$/ton)	85.20	66.00	86.00	85.60	84.20	71.60	70.60	71.50	68.10	68.80
Soybeans (\$/bu.)	7.42	5.70	5.75	5.87	5.87	5.55	5.36	5.66	5.64	5.33
Cotton, upland (cts./lb.)	55.6	66.2	67.8	67.7	68.9	87.2	65.7	66.9	65.2	62.4
Potatoes (\$/cwt)	6.02	7.38	8.15	4.73	9.70	8.18	8.05	5.52	4.62	4.37
Lettuce (\$/cwt) 2/	14.70	12.60	11.50	19.70	23.10	9.46	8.65	7.97	11.30	7.91
Tomatoes fresh (\$/cwt) 2/	27.10	33.10	27.40	31.50	54.40	56.40	29.10	22.60	21.90	18.30
Onions (\$/cwt)	9.75	11.40	10.50	8.29	22.60	14.60	17.00	11.90	10.10	8.22
Dry edible beans (\$/cwt)	29.90	28.60	18.60	17.60	20.00	17.80	21.40	15.80	14.40	14.60
Apples for fresh use (cts./lb.)	17.4	13.9	20.9	19.3	22.5	24.2	24.8	24.6	29.1	24.9
Pears for fresh use (\$/ton)	358.00	336.00	349.00	335.00	431.00	754.00	—	399.00	477.00	411.00
Oranges, all uses (\$/box) 3/	7.18	7.08	5.99	5.31	7.95	21.35	19.48	20.81	21.97	11.09
Grapefruit, all uses (\$/box) 3/	5.43	4.45	6.21	6.62	4.91	5.44	4.82	2.86	1.38	6.24
<b>LIVESTOCK</b>										
Beef cattle (\$/cwt)	66.80	69.87	74.79	75.60	75.90	73.60	71.60	68.80	68.60	69.40
Calves (\$/cwt)	89.85	91.84	96.51	92.80	107.00	108.00	103.00	98.30	96.10	93.90
Hogs (\$/cwt)	42.54	43.24	53.99	56.80	54.10	54.70	54.20	51.20	46.40	44.40
Lambs (\$/cwt)	69.50	67.33	58.01	51.90	67.60	55.30	57.70	53.40	53.60	51.30
All milk, sold to plants (\$/cwt)	12.26	13.56	13.78	13.10	11.40	11.40	11.80	12.30	12.80	13.20
Milk, manuf. grade (\$/cwt)	11.15	12.38	12.33	11.10	10.20	10.40	10.80	11.40	12.10	12.40
Broilers (cts./lb.)	34.0	36.1	32.4	28.4	31.3	31.4	32.8	32.3	32.1	31.1
Eggs (cts./doz) 4/	53.2	70.0	70.4	73.0	59.5	59.3	65.0	63.8	63.0	63.8
Turkeys (cts./lb.)	36.9	40.0	38.4	42.5	38.9	39.7	40.0	40.7	40.2	38.9
Wool (cts./lb.) 5/	136.0	124.0	76.8	74.0	67.4	71.8	56.4	53.0	53.9	66.6

1/ Season average price by crop year for crops. Calendar year average of monthly prices for livestock. 2/ Excludes Hawaii. 3/ Equivalent on-tree returns. 4/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 5/ Average local market price, excluding incentive payments. R = revised. P = preliminary. — not available.

Information contact: Ann Duncan (202) 219-0313.

## Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1990	1991							
	1990	Sept	Feb	Mar	Apr	May	June	July	Aug	Sept
			1982-84=100							
Consumer Price Index, all items	130.7	132.7	134.8	135.0	135.2	135.6	136.0	136.2	136.6	137.2
Consumer Price Index, less food	130.3	132.6	134.6	134.8	134.9	135.4	135.7	136.1	136.7	137.4
<b>All food</b>	<b>132.4</b>	<b>133.2</b>	<b>135.5</b>	<b>135.8</b>	<b>136.7</b>	<b>136.8</b>	<b>137.2</b>	<b>136.6</b>	<b>136.0</b>	<b>136.0</b>
Food away from home	133.4	134.8	136.2	136.5	137.1	137.5	137.9	138.4	138.7	138.9
Food at home	132.3	132.9	135.7	136.0	137.0	136.9	137.4	136.0	134.9	134.9
Meats 1/	128.5	131.0	132.8	133.1	132.7	133.4	133.5	133.1	132.9	131.9
Beef & veal	128.8	129.5	132.6	132.9	133.4	134.1	133.2	132.6	132.3	131.0
Pork	129.8	135.4	135.1	135.2	133.3	134.2	136.1	136.7	135.7	134.1
Poultry	132.5	134.6	132.7	131.9	131.1	132.7	131.5	132.5	132.4	131.0
Fish	146.7	147.4	148.7	149.6	148.2	147.0	146.7	146.1	145.2	147.8
Eggs	124.1	120.6	125.4	133.1	124.9	112.4	110.2	113.9	121.0	118.0
Dairy products 2/	126.5	127.6	125.2	124.9	124.5	124.4	123.9	124.0	124.5	125.3
Fats & oils 3/	126.3	128.2	133.1	132.5	133.0	132.6	131.6	131.6	132.1	131.1
Fresh fruit	170.9	168.7	190.6	195.9	202.3	204.8	204.4	198.8	187.4	194.3
Processed fruit	136.9	139.9	133.2	132.2	132.3	132.1	131.2	130.6	130.9	131.3
Fresh vegetables	161.1	137.3	152.5	151.1	169.2	167.3	180.5	167.7	142.2	137.6
Potatoes	162.6	152.0	140.9	139.6	144.4	149.1	165.8	164.3	156.2	143.7
Processed vegetables	127.5	128.8	128.4	128.2	128.4	126.7	130.0	129.3	128.7	128.1
Cereals & bakery products	140.0	141.6	144.3	144.3	145.2	145.3	145.7	145.8	146.5	146.5
Sugar & sweets	124.7	125.8	127.1	128.3	128.2	129.2	129.5	129.9	130.3	129.6
<b>Beverages, nonalcoholic</b>	<b>113.5</b>	<b>114.2</b>	<b>116.3</b>	<b>114.9</b>	<b>115.5</b>	<b>114.9</b>	<b>113.9</b>	<b>113.1</b>	<b>112.9</b>	<b>112.6</b>
<b>Apparel</b>										
Apparel, commodities less footwear	122.8	125.8	124.8	127.7	129.1	128.3	125.2	123.2	123.2	130.4
Footwear	117.4	118.6	118.4	120.8	121.9	121.7	120.2	119.3	120.2	122.2
Tobacco & smoking products	181.5	185.8	196.7	197.6	199.2	199.6	202.9	203.7	204.7	205.7
<b>Beverages, alcoholic</b>	<b>129.3</b>	<b>130.8</b>	<b>141.6</b>	<b>142.2</b>	<b>142.6</b>	<b>142.7</b>	<b>143.0</b>	<b>143.4</b>	<b>143.8</b>	<b>144.4</b>

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 219-0313.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1990	1991					
	1988	1989	1990	Sept	Apr	May R	June	July	Aug	Sept
	1982 = 100									
Finished goods 1/	108.0	113.6	119.2	120.4	121.1	121.8	121.9	121.6	121.7	121.3
Consumer foods	112.6	118.7	124.4	124.2	125.3	125.8	125.4	124.6	123.4	122.7
Fresh fruit	113.5	113.2	118.1	117.6	131.9	134.8	137.9	145.0	134.2	132.9
Fresh & dried vegetables	105.5	116.7	118.1	94.3	119.7	148.7	135.7	107.4	91.4	87.7
Dried fruit	99.1	103.0	106.7	106.3	111.4	111.4	111.3	111.8	110.9	111.5
Canned fruit & juice	120.2	122.7	127.0	128.6	126.8	127.2	126.8	128.5	128.6	129.6
Frozen fruit & juice	129.8	123.9	139.0	139.9	112.8	112.7	112.7	112.7	109.5	108.9
Fresh veg. excl. potatoes	100.4	103.9	107.8	79.4	112.8	157.0	138.0	102.0	82.6	81.8
Canned veg. & juices	108.3	118.6	118.7	115.4	113.8	114.0	112.7	113.1	111.9	110.9
Frozen vegetables	108.6	115.5	118.4	118.5	117.9	118.1	117.7	117.5	117.6	117.4
Potatoes	113.9	153.6	157.3	155.4	158.4	138.1	148.7	137.6	123.7	110.6
Eggs	88.6	116.6	117.6	112.6	113.2	94.6	96.9	100.7	109.0	105.8
Bakery products	126.4	135.4	141.0	141.9	145.8	145.6	146.3	146.1	146.9	147.5
Meats	99.9	104.8	117.0	117.2	117.4	117.8	117.4	116.1	111.2	108.1
Beef & veal	101.4	108.9	116.0	114.1	118.4	117.3	114.9	111.6	104.8	104.5
Pork	95.0	97.7	119.8	121.0	115.7	116.4	120.6	121.8	117.0	107.9
Processed poultry	111.6	120.4	113.6	116.7	109.0	112.2	111.8	113.3	113.5	112.8
Fish	148.7	142.9	147.2	140.0	155.6	157.3	148.4	148.6	139.5	142.0
Dairy products	102.2	110.6	117.2	119.0	111.5	111.5	112.0	113.6	115.1	115.9
Processed fruits & vegetables	113.8	116.9	124.7	124.9	119.2	119.3	118.8	119.2	118.4	118.2
Shortening & cooking oil	118.8	116.6	123.2	127.3	120.8	116.6	115.0	111.6	117.4	114.9
Soft drinks	114.3	177.7	122.3	121.7	127.2	125.1	126.5	125.8	125.1	124.6
Consumer finished goods less foods	103.1	106.9	115.3	117.7	117.2	118.2	118.6	118.3	119.0	118.8
Beverages, alcoholic	111.8	115.2	117.2	117.3	124.3	123.5	123.3	123.9	123.4	123.3
Apparel	111.7	114.5	117.5	118.1	119.4	119.3	119.8	119.8	120.0	120.0
Footwear	115.1	120.8	125.6	126.1	128.3	128.7	128.6	128.7	129.4	129.4
Tobacco products	171.9	194.8	221.4	225.0	243.3	243.4	249.1	254.3	254.9	254.7
Intermediate materials 2/	107.1	112.0	114.5	116.3	113.9	114.0	114.3	114.0	114.3	114.5
Materials for food manufacturing	106.0	112.7	117.9	118.6	116.1	115.5	115.3	116.5	115.4	114.5
Flour	105.7	114.6	103.6	94.8	95.5	96.3	95.7	93.1	96.3	98.2
Refined sugar 3/	108.9	118.2	122.7	123.1	122.0	121.3	121.0	121.4	121.3	121.4
Crude vegetable oils	116.6	103.1	115.8	124.1	111.3	102.5	101.8	95.9	101.3	100.9
Crude materials 4/	96.0	103.1	106.9	115.3	100.8	102.1	99.5	99.4	99.2	98.0
Foodstuffs & feedstuffs	106.1	111.2	113.1	110.8	109.0	108.7	107.4	104.9	102.5	102.9
Fruits & vegetables 5/	108.5	114.6	117.5	104.0	124.4	141.9	136.0	123.4	109.7	107.0
Grains	97.9	106.4	97.4	88.3	94.1	92.7	90.2	84.3	93.2	92.4
Livestock	103.3	106.1	115.6	113.3	115.8	115.2	112.8	110.2	100.7	101.1
Poultry, live	121.5	128.8	118.8	128.9	107.3	113.9	112.7	119.2	120.4	116.7
Fibers, plant & animal	98.4	107.8	117.8	116.6	134.0	139.2	130.8	120.2	106.7	103.6
Fluid milk	89.4	98.8	100.6	104.6	82.9	83.4	84.8	86.6	90.3	93.3
Oilseeds	134.0	123.8	112.1	120.1	109.7	107.5	108.7	99.3	104.2	107.0
Tobacco, leaf	87.2	93.8	95.8	98.9	99.6	99.6	99.6	99.6	98.3	102.8
Sugar, raw cane	111.9	115.5	119.2	119.3	113.1	112.8	113.3	112.6	114.0	114.4
All commodities	106.9	112.2	116.3	116.4	116.0	116.5	116.3	116.0	116.2	116.0
Industrial commodities	106.3	111.6	115.8	118.4	115.6	116.1	116.0	116.0	116.4	116.2
All foods 6/	111.5	117.6	123.2	122.9	123.5	124.2	123.5	122.7	121.5	120.7
Farm products & processed foods & feeds	110.0	115.4	118.6	117.9	118.1	118.3	117.7	116.3	115.3	115.0
Farm products	104.9	110.9	112.2	109.2	109.6	110.4	108.9	105.2	102.6	102.8
Processed foods & feeds 6/	112.7	117.8	121.9	122.4	122.5	122.3	122.1	121.8	121.6	121.1
Cereal & bakery products	123.0	131.1	134.2	133.7	137.0	137.4	137.8	137.1	138.1	138.6
Sugar & confectionery	114.7	120.1	123.1	123.9	128.3	127.8	128.4	130.3	130.0	130.6
Beverages	114.3	118.4	120.8	120.8	125.5	124.3	124.7	123.8	123.1	123.1

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types & sizes of refined sugar. 4/ Products entering market for the first time that have not been manufactured at that point. 5/ Fresh & dried. 6/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). R = revised.

Information contact: Ann Duncan (202) 219-0313.



# Farm-Retail Price Spreads

## Table 8.—Farm-Retail Price Spreads

	Annual			1990		1991					
	1988	1989	1990	Sept	Apr	May	June	July	Aug	Sept	
<b>Market basket 1/</b>											
Retail cost (1982-84=100)	116.5	124.6	133.5	134.1	138.5	138.4	139.2	137.7	136.8	136.6	
Farm value (1982-84=100)	100.5	107.1	113.3	112.5	108.9	110.9	109.7	107.2	104.6	103.2	
Farm-retail spread (1982-84=100)	125.1	134.1	144.4	145.9	154.3	153.1	155.0	154.1	154.1	154.5	
Farm value-retail cost (%)	30.2	30.1	29.7	29.4	27.5	28.1	27.6	27.3	26.8	26.5	
<b>Meat products</b>											
Retail cost (1982-84=100)	112.2	116.7	128.5	131.0	132.7	133.4	133.5	133.1	132.9	131.9	
Farm value (1982-84=100)	99.5	103.3	116.8	115.1	117.2	117.0	115.3	112.8	108.8	102.8	
Farm-retail spread (1982-84=100)	125.2	130.4	140.8	147.3	148.6	150.2	152.2	153.9	157.8	161.7	
Farm value-retail cost (%)	44.9	44.8	46.0	44.5	44.7	44.4	43.7	42.9	41.4	39.5	
<b>Dairy products</b>											
Retail cost (1982-84=100)	109.4	115.6	126.5	127.6	124.5	124.4	123.9	124.0	124.5	125.3	
Farm value (1982-84=100)	90.6	99.1	101.9	105.3	85.0	84.9	85.9	87.8	90.5	91.4	
Farm-retail spread (1982-84=100)	124.7	130.8	149.2	148.1	160.9	160.8	159.0	157.4	155.8	158.6	
Farm value-retail cost (%)	40.1	41.1	38.6	39.8	32.8	32.7	33.2	34.0	34.9	35.0	
<b>Poultry</b>											
Retail cost (1982-84=100)	120.7	132.7	132.5	134.6	131.1	132.7	131.5	132.5	132.4	131.0	
Farm value (1982-84=100)	110.2	117.1	107.8	115.1	100.1	103.7	104.3	107.7	107.2	106.6	
Farm-retail spread (1982-84=100)	132.8	150.6	161.1	157.1	166.7	166.1	162.8	161.0	161.4	159.3	
Farm value-retail cost (%)	48.9	47.2	43.5	45.7	40.9	41.8	42.5	43.5	43.3	43.5	
<b>Eggs</b>											
Retail cost (1982-84=100)	93.6	118.5	124.1	120.6	124.8	112.4	110.2	113.9	121.0	118.0	
Farm value (1982-84=100)	76.7	107.5	108.0	105.9	96.6	85.4	85.2	96.6	95.4	93.7	
Farm-retail spread (1982-84=100)	123.9	138.1	153.2	147.1	175.5	160.9	155.0	145.0	167.0	161.7	
Farm value-retail cost (%)	52.7	58.3	55.9	56.4	49.7	48.8	49.7	54.5	50.6	51.0	
<b>Cereal &amp; bakery products</b>											
Retail cost (1982-84=100)	122.1	132.4	140.0	141.6	145.2	145.3	145.7	145.9	146.5	146.5	
Farm value (1982-84=100)	92.7	101.7	90.5	81.5	84.9	85.4	82.9	81.0	82.9	87.8	
Farm-retail spread (1982-84=100)	126.2	136.7	146.9	150.0	153.6	153.7	154.5	154.8	155.4	154.7	
Farm value-retail cost (%)	9.3	9.4	7.9	7.0	7.2	7.2	7.0	6.8	6.9	7.3	
<b>Fresh fruits</b>											
Retail cost (1982-84=100)	145.4	154.7	174.6	171.9	206.5	207.3	209.7	203.8	195.9	203.0	
Farm value (1982-84=100)	116.5	108.5	128.0	131.4	179.1	184.2	208.1	174.6	165.9	176.2	
Farm-retail spread (1982-84=100)	158.7	176.0	196.0	190.6	220.5	218.0	210.4	217.3	209.8	215.4	
Farm value-retail cost (%)	25.3	22.2	23.2	24.1	26.9	28.1	31.3	27.1	26.7	27.4	
<b>Fresh vegetables</b>											
Retail cost (1982-84=100)	129.3	143.1	151.1	137.3	169.2	167.3	180.5	157.7	142.2	137.6	
Farm value (1982-84=100)	105.8	123.3	124.2	99.8	131.3	161.8	134.2	119.2	93.0	94.8	
Farm-retail spread (1982-84=100)	141.3	153.2	165.0	156.6	188.7	170.1	204.3	177.5	167.5	159.6	
Farm value-retail cost (%)	27.8	29.3	27.9	24.7	26.3	32.8	25.3	25.7	22.2	23.4	
<b>Processed fruits &amp; vegetables</b>											
Retail cost (1982-84=100)	117.6	125.0	132.7	135.0	130.5	130.5	130.5	129.9	129.8	129.8	
Farm value (1982-84=100)	136.6	133.6	147.2	152.9	125.0	125.0	124.6	123.6	123.4	122.4	
Farm-retail spread (1982-84=100)	111.7	122.3	128.1	129.4	132.2	132.2	132.3	131.9	131.8	132.1	
Farm value-retail cost (%)	27.6	25.4	26.4	26.9	22.8	22.8	22.7	22.6	22.6	22.4	
<b>Fats &amp; oils</b>											
Retail cost (1982-84=100)	113.1	121.2	126.3	128.2	133.0	132.6	131.6	131.6	132.1	131.1	
Farm value (1982-84=100)	103.0	95.6	107.1	111.9	105.8	100.0	96.4	93.8	96.2	96.9	
Farm-retail spread (1982-84=100)	116.8	130.6	133.4	134.2	143.0	144.8	144.6	145.5	145.3	143.7	
Farm value-retail cost (%)	24.5	21.2	22.8	23.5	21.4	20.3	19.7	19.2	19.6	19.9	
	Annual			1990		1991					
	1988	1989	1990	Oct	May	June	July	Aug	Sept	Oct	
<b>Beef, Choice</b>											
Retail price 2/ (cts./lb.)	250.3	265.7	281.0	282.7	296.1	292.4	288.4	285.4	280.1	277.2	
Wholesale value 3/ (cts.)	169.4	176.8	189.6	192.2	190.9	188.1	178.8	172.2	170.8	174.5	
Net farm value 4/ (cts.)	148.3	157.6	168.4	171.0	170.0	160.9	156.2	145.1	148.9	149.8	
Farm-retail spread (cts.)	102.0	108.1	112.6	111.7	126.1	131.5	132.2	140.3	133.3	127.4	
Wholesale-retail 5/ (cts.)	80.9	88.9	91.4	90.5	105.2	106.3	109.6	113.2	109.3	102.7	
Farm-wholesale 6/ (cts.)	21.1	19.2	21.2	21.2	20.9	25.2	22.6	27.1	24.0	24.7	
Farm value-retail price (%)	59	59	60	60	57	55	54	51	52	54	
<b>Pork</b>											
Retail price 2/ (cts./lb.)	183.4	182.9	212.6	223.2	213.3	214.6	217.7	214.2	211.9	207.7	
Wholesale value 3/ (cts.)	101.0	99.2	118.3	124.4	115.5	116.0	115.7	111.5	107.1	104.6	
Net farm value 4/ (cts.)	69.4	70.4	87.2	91.2	87.4	87.7	89.0	81.2	74.7	69.4	
Farm-retail spread (cts.)	114.0	112.5	125.4	132.0	125.9	126.9	128.7	133.0	137.2	138.3	
Wholesale-retail 5/ (cts.)	82.4	83.7	94.3	98.8	97.8	98.6	102.0	102.7	104.8	103.1	
Farm-wholesale 6/ (cts.)	31.6	28.8	31.1	33.2	28.1	28.3	26.7	30.3	32.4	35.2	
Farm value-retail price (%)	38	38	41	41	41	41	41	38	35	33	

1/ Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by BLS. The farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing. 2/ Weighted average price of retail cuts from pork & choice yield grade 3 beef. Prices from BLS. 3/ Value of wholesale (boxed beef & wholesale cuts (pork) equivalent to 1 lb. of retail cuts adjusted for transportation costs & byproduct values. 4/ Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of byproducts. 5/ Charges for retailing & other marketing services such as wholesaling, and in-city transportation. 6/ Charges for livestock marketing, processing, & transportation.

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Table 9.—Price Indexes of Food Marketing Costs

	Annual			1990			1991		
	1988	1989	1990	II	III	IV	I	II	III P
	1967=100*								
Labor—hourly earnings & benefits	370.1	379.6	393.2	392.4	392.9	398.7	403.3	407.2	406.4
Processing	382.0	390.3	404.4	403.7	404.0	409.3	415.5	419.9	417.9
Wholesaling	394.1	409.1	422.0	420.2	423.9	427.2	433.6	437.7	436.1
Retailing	347.7	355.6	389.5	368.8	368.1	375.6	377.7	381.0	381.7
Packaging & containers	350.7	364.6	367.6	367.3	366.5	369.4	375.0	372.0	369.8
Paperboard boxes & containers	308.1	323.7	323.9	324.1	322.3	322.5	322.4	318.4	317.9
Metal cans	442.3	443.2	455.0	458.3	456.3	456.3	468.1	469.2	471.7
Paper bags & related products	372.2	409.2	413.0	408.9	410.2	421.3	423.1	419.5	411.4
Plastic films & bottles	305.7	313.2	307.1	308.9	303.9	309.2	318.0	311.6	308.8
Glass containers	398.9	409.9	427.3	428.0	428.9	429.8	445.4	445.9	446.2
Metal foil	266.9	274.4	258.4	257.6	261.4	264.7	263.0	257.5	245.0
Transportation services	403.5	404.9	411.3	410.5	408.2	415.7	420.7	423.2	422.7
Advertising	384.7	409.1	433.0	429.6	435.1	441.7	453.6	458.0	462.2
Fuel & power	578.2	619.4	671.4	615.0	668.0	750.1	679.5	636.8	656.8
Electric	453.3	468.9	477.7	470.3	498.0	480.1	490.6	505.3	530.6
Petroleum	502.0	592.1	744.8	582.6	713.4	989.8	739.1	599.6	626.4
Natural gas	1,042.1	1,070.9	1,071.0	1,059.0	1,058.6	1,076.2	1,089.8	1,056.0	1,051.5
Communications, water & sewage	241.3	247.3	253.1	253.0	253.0	255.0	258.4	260.4	263.5
Rent	272.6	277.1	273.0	274.6	274.9	270.3	271.6	269.2	263.8
Maintenance & repair	395.9	410.7	426.7	425.2	428.2	432.4	435.7	441.1	445.4
Business services	364.6	388.3	405.6	403.3	407.5	412.7	421.6	428.1	432.0
Supplies	305.6	321.4	321.1	318.9	320.1	326.6	325.5	319.5	314.6
Property taxes & insurance	419.9	439.7	462.2	456.5	468.3	471.4	474.0	477.4	482.4
Interest, short-term	150.3	172.1	155.5	160.3	153.2	150.3	129.1	118.5	114.1
Total marketing cost index	372.4	384.8	397.6	394.1	397.2	405.7	407.0	406.9	407.4

\* Indexes measure changes in employee earnings & benefits & in prices of supplies & services used in processing, wholesaling, & retailing U.S. farm foods purchased for at-home consumption. P = preliminary.

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# Livestock & Products

Table 10.—U.S. Meat Supply &amp; Use

	Beg. stocks	Production 1/	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price 3/
							Total	Per capita 2/	
Million pounds 4/							Pounds		
Beef									
1989	422	23,087	2,179	25,688	1,023	335	24,330	89.3	73.86
1990	335	22,743	2,356	25,434	1,006	397	24,031	87.8	78.56
1991 F	397	22,973	2,315	25,685	1,150	340	24,195	87.6	74-76
1992 F	340	23,284	2,280	25,904	1,245	325	24,334	87.4	73-79
Pork									
1989	437	15,813	896	17,146	282	313	16,571	52.0	44.03
1990	313	15,354	898	16,565	239	298	16,030	49.8	54.45
1991 F	296	15,968	842	17,106	257	425	16,424	50.5	48-50
1992 F	425	17,204	880	18,509	270	375	17,864	54.5	39-45
Veal 5/									
1989	5	355	0	360	0	4	356	1.2	91.84
1990	4	327	0	331	0	6	325	1.1	96.51
1991 F	5	302	0	308	0	4	304	1.0	100-102
1992 F	4	280	0	284	0	4	280	0.9	94-100
Lamb & mutton									
1989	6	347	63	416	2	8	406	1.5	67.32
1990	8	363	59	430	3	8	419	1.5	55.54
1991 F	8	381	60	429	3	7	419	1.5	52-54
1992 F	7	368	60	435	2	9	424	1.5	49-55
Total red meat									
1989	870	39,602	3,138	43,610	1,287	660	41,663	124.0	—
1990	680	38,787	3,313	42,780	1,248	707	40,805	120.1	—
1991 F	707	39,604	3,217	43,528	1,410	776	41,342	120.5	—
1992 F	776	41,136	3,220	45,132	1,517	713	42,902	124.3	—
Broilers									
1989	36	17,424	0	17,460	814	38	16,808	67.1	59.0
1990	38	16,660	0	16,698	1,143	28	17,529	70.1	54.8
1991 F	26	19,877	0	19,903	1,150	40	18,713	74.1	50-52
1992 F	40	20,658	0	20,698	1,180	35	19,483	76.6	48-52
Mature chicken									
1989	157	568	0	725	24	189	511	2.1	—
1990	189	588	0	777	25	224	528	2.1	—
1991 F	224	560	0	784	26	240	518	2.1	—
1992 F	240	570	0	810	25	230	555	2.2	—
Turkeys									
1989	250	4,285	0	4,535	41	238	4,259	17.2	66.7
1990	236	4,734	0	4,970	54	308	4,610	18.4	63.2
1991 F	306	4,857	0	5,163	80	300	4,783	18.9	59-61
1992 F	300	4,982	0	5,282	80	250	4,952	19.5	56-62
Total poultry									
1989	442	22,278	0	22,720	878	483	21,378	86.4	—
1990	483	23,982	0	24,445	1,222	557	22,666	90.7	—
1991 F	557	25,294	0	25,851	1,256	580	24,014	95.1	—
1992 F	580	26,210	0	26,790	1,285	515	24,990	98.2	—
Red meat & poultry									
1989	1,312	61,880	3,138	66,330	2,165	1,123	63,042	210.4	—
1990	1,123	62,769	3,313	67,205	2,470	1,264	63,471	210.8	—
1991 F	1,264	64,898	3,217	69,379	2,666	1,356	65,356	215.6	—
1992 F	1,356	67,346	3,220	71,922	2,802	1,228	67,892	222.5	—

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry. 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was 70.5) 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef, Medium # 1, Nebraska Direct 1,100-1,300 lb.; pork: barrows & gilts, 7 markets; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast. — = not available.

Information contacts: Polly Cochran, or Maxine Davis (202) 219-0767.



Table 11.—U.S. Egg Supply &amp; Use

	Beg. stocks	Pro- duc- tion	Im- ports	Total supply	Ex- ports	Hatch- ing use	Ending stocks	Consumption		
								Total	Per capita	Wholesale price*
				Million dozen				No.	Cts./doz.	
1987	10.4	5,868.2	5.6	5,884.2	111.2	599.1	14.4	5,159.5	254.9	81.6
1988	14.4	5,784.2	5.3	5,803.9	141.8	605.9	15.2	5,041.0	246.8	82.1
1989	15.2	5,597.8	25.2	5,638.2	91.6	642.9	10.7	4,893.0	237.3	81.9
1990	10.7	5,659.9	9.1	5,679.6	100.5	675.8	11.6	4,891.7	234.8	82.2
1991 F	11.6	5,731.9	2.2	5,745.8	139.8	706.4	12.0	4,887.6	232.3	77-79
1992 F	12.0	5,770.0	2.4	5,784.4	137.0	740.0	12.0	4,895.4	230.9	72-78

\* Cartoned grade A large eggs, New York. F = forecast.

Information contact: Maxine Davis (202) 219-0767.

Table 12.—U.S. Milk Supply &amp; Use

Production	Farm use	Commercial			Total commercial supply	CCC net removals	Commercial		All milk price 1/	CCC net removals		
		Farm market-ings	Beg. stock	Im-ports			Ending stocks	Disap-pear-ance		Skim solids basis	Total solids basis 2/	
		Billion pounds (milkfat basis)								Billion pounds		
1984	135.4	2.9	132.4	5.1	2.7	140.2	8.7	4.8	128.7	13.48	12.4	10.9
1985	143.0	2.5	140.6	4.8	2.8	148.2	13.3	4.5	130.4	12.76	17.2	15.6
1986	143.1	2.4	140.7	4.5	2.7	147.9	10.8	4.1	133.0	12.51	14.3	12.9
1987	142.7	2.3	140.5	4.1	2.5	147.1	6.8	4.0	135.7	12.54	9.3	8.3
1988	145.2	2.2	142.9	4.6	2.4	149.9	9.1	4.3	136.5	12.26	5.5	6.9
1989	144.2	2.1	142.2	4.3	2.5	149.0	9.4	4.1	135.5	13.56	0.4	4.0
1990	148.3	2.0	146.3	4.1	2.7	153.1	9.0	5.1	139.0	13.73	1.6	4.6
1991 F	148.6	2.0	146.6	5.1	2.5	154.2	9.9	4.7	139.6	12.25	4.1	6.4

1/ Delivered to plants &amp; dealers; does not reflect deductions. 2/ Arbitrarily weighted average of milkfat basis (40 percent) &amp; skim solids basis (60 percent). F = forecast.

Information contact: Jim Miller (202) 219-0770.

Table 13.—Poultry &amp; Eggs

	Annual			1990 Sept	1991					
	1988	1989	1990		Apr	May	June	July	Aug.	Sept
<b>Broilers</b>										
Federally inspected slaughter, certified (mil. lb.)	16,124.4	17,334.2	18,553.9	1,421.4	1,692.0	1,739.9	1,572.1	1,747.7	1,758.2	1,585.3
Wholesale price, 12-city (cts./lb.)	66.3	59.0	54.8	57.4	52.0	52.0	52.7	54.3	54.6	53.6
Price of grower feed (\$/ton)	219	237	219.3	219	209	209	209	204	202	201
Broiler-feed price ratio 1/	3.1	3.0	3.0	3.1	2.9	3.0	3.0	3.2	3.2	3.2
Stocks beginning of period (mil. lb.)	24.8	35.9	39.3	25.9	30.5	32.8	36.3	41.9	44.4	40.1
Broiler-type chicks hatched (mil.) 2/	5,602.4	5,946.9	6,314.6	510.0	654.0	683.4	566.7	561.4	558.5	532.8
<b>Turkeys</b>										
Federally inspected slaughter, certified (mil. lb.)	3,923.4	4,174.8	4,660.9	382.9	377.1	398.4	385.0	412.8	424.2	405.9
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	61.2	66.7	63.2	69.0	60.3	62.3	62.7	63.4	64.7	64.4
Price of turkey grower feed (\$/ton)	243	251	238.4	237.0	237	236	234	229	228	230
Turkey-feed price ratio 1/	3.0	3.2	3.2	3.4	3.1	3.3	3.4	3.5	3.6	3.5
Stocks beginning of period (mil. lb.)	269.2	249.7	235.9	593.1	365.9	408.0	451.3	503.1	571.3	625.8
Poults placed in U.S. (mil.)	261.4	290.7	304.9	19.7	28.8	29.8	28.2	28.8	25.6	21.1
<b>Eggs</b>										
Farm production (mil.)	69,410	67,174	67,919	5,534	5,621	5,781	5,809	5,800	5,808	5,630
Average number of layers (mil.)	277	269	270	268	271	271	271	271	271	273
Rate of lay (eggs per layer on farms)	251	250	251.7	20.7	20.7	21.3	20.7	21.5	21.4	20.6
Cartoned price, New York, grade A large (cts./doz.) 3/	62.1	81.9	82.2	82.2	74.9	67.0	68.8	79.8	76.3	75.5
Price of laying feed (\$/ton)	203	209	202	205	195	195	194	188	186	188
Egg-feed price ratio 1/	5.3	6.7	6.9	6.7	6.7	6.1	6.1	6.9	6.6	6.7
<b>Stocks, first of month</b>										
Shell (mil. doz.)	1.29	0.27	0.36	0.57	0.42	0.36	0.45	0.39	0.39	0.30
Frozen (mil. doz.)	13.1	14.9	10.3	13.0	10.7	9.8	10.3	10.8	13.7	12.4
Replacement chicks hatched (mil.)	366	383	399.0	31.2	39.5	38.9	35.5	34.7	33.3	33.9

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 15 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 219-0767.

Table 14.—Dairy

	Annual			1990	1991					
	1988	1989	1990	Sept	Apr	May	June	July	Aug	Sept
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/	11.03	12.37	12.21	12.50	10.04	10.23	10.58	10.99	11.50	12.02
Wholesale prices										
Butter, grade A Chl. (cts./lb.)	132.5	127.9	102.1	98.9	97.3	97.3	98.1	98.9	98.9	100.7
Am. cheese, Wia. assembly pl. (cts./lb.)	123.8	138.8	138.7	142.6	111.7	115.0	121.4	128.4	138.1	139.7
Nonfat dry milk (cts./lb.) 2/	79.7	105.5	100.6	92.0	85.4	86.1	88.9	92.2	92.2	93.9
USDA net removals										
Total milk equiv. (mil. lb.) 3/	9,070.1	9,357.0	8,951.2	125.7	1,685.4	1,503.6	637.7	308.3	70.8	27.3
Butter (mil. lb.)	312.6	413.4	400.3	5.6	70.4	6/ 65.2	6/ 26.2	6/ 14.3	6/ 3.3	6/ 1.6
Am. cheese (mil. lb.)	238.1	37.4	21.5	0	15.1	8.2	7.1	-0.5	0	-0.7
Nonfat dry milk (mil. lb.)	267.5	0	117.8	15.9	48.4	28.8	4.7	-0.5	-1.0	-0.6
Milk										
Milk prod. 21 States (mil. lb.)	123,518	122,509	125,714	9,973	10,906	11,228	10,573	10,472	10,316	9,944
Milk per cow (lb.)	14,291	14,369	14,768	1,171	1,294	1,334	1,280	1,251	1,232	1,187
Number of milk cows (1,000)	8,643	8,526	8,513	8,516	8,428	8,418	8,389	8,368	8,372	8,380
U.S. milk production (mil. lb.)	145,152	144,239	148,284	7/ 11,732	7/ 12,881	7/ 13,261	7/ 12,488	7/ 12,374	7/ 12,189	7/ 11,750
Stock, beginning										
Total (mil. lb.)	7,473	8,379	9,036	13,950	16,765	18,402	19,055	19,519	19,414	18,565
Commercial (mil. lb.)	4,596	4,256	4,120	5,507	5,969	6,289	6,211	6,158	6,190	5,604
Government (mil. lb.)	2,877	4,122	4,916	8,443	10,796	12,113	12,844	13,363	13,225	12,961
Imports, total (mil. lb.) 3/	2,394	2,499	2,690	222	174	238	265	234	231	—
Commercial disappearance (mil. lb.)	136,574	135,439	138,947	11,934	10,882	11,899	12,002	12,094	12,761	—
Butter										
Production (mil. lb.)	1,207.6	1,295.4	1,302.2	83.4	133.7	126.0	98.3	88.9	85.0	84.7
Stocks, beginning (mil. lb.)	143.2	214.7	256.2	427.9	555.9	619.8	647.5	665.6	665.0	633.2
Commercial disappearance (mil. lb.)	909.8	876.0	915.2	84.9	56.3	65.2	78.0	69.5	103.9	—
American cheese										
Production (mil. lb.)	2,756.6	2,674.1	2,890.8	214.8	236.9	247.5	235.2	225.0	224.5	205.8
Stocks, beginning (mil. lb.)	370.4	293.0	236.2	361.0	381.4	403.6	406.9	412.4	404.0	393.3
Commercial disappearance (mil. lb.)	2,570.0	2,683.1	2,781.0	225.6	207.4	241.8	225.8	237.8	232.5	—
Other cheese										
Production (mil. lb.)	2,815.4	2,941.3	3,170.4	257.8	263.8	268.5	270.2	264.9	269.2	270.7
Stocks, beginning (mil. lb.)	89.7	104.7	93.2	117.0	106.2	106.9	103.8	107.7	108.7	102.0
Commercial disappearance (mil. lb.)	3,034.5	3,208.9	3,429.8	286.6	282.2	296.5	291.0	288.4	301.2	—
Nonfat dry milk										
Production (mil. lb.)	979.7	874.7	876.6	52.2	95.1	101.4	78.6	69.8	56.8	44.5
Stocks, beginning (mil. lb.)	177.2	53.1	49.5	123.6	255.8	287.0	328.8	342.8	349.7	337.5
Commercial disappearance (mil. lb.)	734.3	873.0	895.0	43.8	51.3	82.7	80.9	68.0	59.0	—
Frozen dessert										
Production (mil. gal.) 4/	1,248.0	1,214.0	1,162.9	91.6	103.5	114.7	124.9	126.4	118.1	98.4
	Annual			1990				1991		
	1988	1989	1990	I	II	III	IV	I	II P	III P
Milk production (mil. lb.)	145,152	144,239	148,284	36,740	38,626	36,632	36,285	37,470	38,630	36,313
Milk per cow (lb.)	14,145	14,244	14,642	3,627	3,820	3,620	3,575	3,708	3,855	3,642
No. of milk cows (1,000)	10,262	10,126	10,127	10,128	10,111	10,119	10,151	10,104	10,020	9,970
Milk-feed price ratio 5/	1.58	1.65	1.72	1.83	1.69	1.74	1.57	1.49	1.47	1.59
Returns over concentrate 5/ costs (\$/cwt milk)	8.99	10.18	10.39	11.13	10.00	10.50	9.03	8.30	8.10	9.00

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area. 3/ Milk equivalent, fat basis. 4/ Hard ice cream, ice milk, & hard sherbet. 5/ Based on average milk price after adjustment for price support deductions. 6/ Includes estimates of butteroil exported through the Dairy Export Incentive Program (DEIP). 7/ Estimated. P = preliminary. — = not available.

Information contact: LaVerne T. Williams (202) 219-0770.

Table 15.—Wool

	Annual			1990			1991		
	1988	1989	1990	II	III	IV	I	II	III
U.S. wool price, (cts./lb.) 1/	438	370	256	272	238	227	197	200	217
Imported wool price, (cts./lb.) 2/	372	354	287	312	281	270	235	199	194
U.S. mill consumption, scoured									
Apparel wool (1,000 lb.)	117,069	120,534	120,622	31,726	26,888	30,497	33,320	38,691	35,963
Carpet wool (1,000 lb.)	15,633	14,122	12,124	2,950	3,125	2,138	3,088	3,119	4,644

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up. 2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. — = not available.

Information contact: John Lawler (202) 219-0840.

Table 16.—Meat Animals

	Annual			1990	1991					
	1988	1989	1990	Oct	May	June	July	Aug	Sept	Oct
<b>Cattle on feed (7 States)</b>										
Number on feed (1,000 head) 1/	8,411	8,045	8,378	7,870	8,876	8,585	7,847	7,348	7,009	7,158
Placed on feed (1,000 head)	20,654	20,834	21,215	2,751	1,717	1,077	1,317	1,439	1,821	—
Marketings (1,000 head)	19,918	19,422	19,238	1,805	1,666	1,701	1,724	1,711	1,568	—
Other disappearance (1,000 head)	1,202	1,079	1,218	87	141	114	92	67	78	—
<b>Beef steer-corn price ratio,</b>										
Omaha 2/	31.5	30.3	32.8	36.5	32.7	32.0	31.3	28.5	28.8	29.9
Hog-corn price ratio, Omaha 2/	19.8	18.4	23.1	27.0	22.9	23.8	24.2	21.8	19.9	18.9
<b>Market prices (\$/cwt)</b>										
<b>Slaughter cattle</b>										
Choice steers, Omaha 1,000–1,100 lb.	69.54	72.52	77.40	77.50	78.28	74.63	72.08	67.25	67.20	68.91
Choice steers, Neb. Direct, 1,100–1,300 lb.	71.19	73.88	78.58	79.33	78.29	74.39	72.15	67.24	68.07	69.79
Boning utility cows, Sioux Falls	47.21	48.98	53.80	50.58	53.40	54.19	52.41	50.08	49.77	47.83
<b>Feeder cattle</b>										
Medium no. 1, Oklahoma City 600–700 lb.	84.72	86.66	92.15	94.14	97.06	97.30	95.81	90.06	89.74	88.80
<b>Slaughter hogs</b>										
Barrows & gilts, 7-markets	43.39	44.03	54.45	57.15	54.47	54.65	55.22	50.78	46.53	43.18
<b>Feeder pigs</b>										
S. Mo. 40–50 lb. (per head)	36.06	33.83	51.46	52.33	52.98	42.78	40.96	38.53	38.22	33.75
<b>Slaughter sheep &amp; lambs</b>										
Lambs, Choice, San Angelo	88.26	87.32	55.54	52.50	57.70	55.75	55.50	54.31	53.25	151.20
Ewes, Good, San Angelo	38.88	38.58	35.21	32.00	29.90	33.38	34.63	31.06	29.63	28.80
<b>Feeder lambs</b>										
Choice, San Angelo	90.89	79.85	62.95	55.90	54.98	49.69	51.81	53.38	52.63	51.70
<b>Wholesale meat prices, Midwest</b>										
Boxed beef cut-out value	110.50	114.78	123.21	124.98	123.78	120.81	115.82	111.54	110.61	113.04
Canner & cutter cow beef	87.77	94.43	99.96	98.01	103.31	105.15	101.89	101.23	99.89	98.18
Pork loins, 14–18 lb. 3/	97.49	101.09	117.62	113.71	120.48	123.49	121.73	117.54	105.85	100.87
Pork bellies, 12–14 lb.	41.25	34.14	53.80	58.83	57.50	56.48	50.40	42.01	38.97	32.28
Hams, skinned, 14–17 lb.	71.03	69.39	87.70	107.24	80.00	NQ	85.00	85.00	85.00	87.25
<b>All fresh beef retail price 4/</b>	224.81	238.97	254.99	258.38	265.87	264.50	263.39	261.58	258.23	259.12
<b>Commercial slaughter (1,000 head)*</b>										
<b>Cattle</b>	35,079	33,917	33,242	2,983	2,851	2,709	2,844	2,905	2,703	—
Steers	17,346	16,539	16,587	1,401	1,491	1,445	1,515	1,543	1,386	—
Halfers	10,753	10,408	10,090	920	850	813	893	893	852	—
Cows	6,338	6,316	5,920	581	454	400	415	415	414	—
Bulls & stags	644	657	644	61	58	51	51	55	51	—
Calves	2,506	2,172	1,789	183	105	92	111	112	119	—
<b>Sheep &amp; lambs</b>	5,293	5,465	5,654	506	461	406	451	458	477	—
<b>Hogs</b>	87,795	88,691	85,135	7,758	7,130	6,296	6,733	7,279	7,359	—
<b>Commercial production (mil. lb.)</b>										
Beef	23,424	22,974	22,634	2,044	1,948	1,874	1,996	2,077	1,939	—
Veal	387	344	318	31	23	20	22	22	24	—
Lamb & mutton	329	341	357	32	30	25	28	27	29	—
Pork	15,623	15,759	15,299	1,392	1,291	1,140	1,207	1,299	1,315	—

	Annual			1990			1991			
	1988	1989	1990	II	III	IV	I	II	III	IV
<b>Cattle on feed (13 States)</b>										
Number on feed (1,000 head) 1/	10,114	9,688	9,943	10,063	8,781	8,092	10,077	10,869	9,428	8,540
Placed on feed (1,000 head)	24,423	24,469	24,948	5,086	6,333	7,488	5,692	4,890	5,384	—
Marketings (1,000 head)	23,459	22,940	22,581	6,988	5,741	5,254	5,338	5,869	5,968	5,155
Other disappearance (1,000 head)	1,390	1,274	1,393	400	261	347	462	464	282	—
<b>Hogs &amp; pigs (10 States) 5/</b>										
Inventory (1,000 head) 1/	42,875	43,210	42,200	40,180	42,630	44,120	42,900	41,990	44,470	48,950
Breeding (1,000 head) 1/	5,435	5,335	5,275	5,245	5,405	5,300	5,257	5,450	5,700	5,886
Market (1,000 head) 1/	37,240	37,875	36,925	34,945	37,225	38,820	37,643	36,540	38,770	41,265
Farrowings (1,000 head)	9,370	9,203	8,955	2,458	2,238	2,238	2,129	2,577	2,441	2,433
Pig crop (1,000 head)	72,268	71,807	70,549	19,578	17,684	17,459	16,770	20,555	19,260	—

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Prior to 1984, 8–14 lb.; 1984 & 1985, 14–17 lb.; beginning 1986, 14–18 lb. 4/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 5/ Quarters are Dec. of preceding year—Feb. (I), Mar.—May (II), June–Aug. (III), & Sept.–Nov. (IV). 6/ Intentions.

\*Classes estimated. May not add to NASS totals due to rounding. — = not available. NQ = no quotation.

Information contact: Polly Cochran (202) 219-0767.



## Crops &amp; Products

Table 17.—Supply & Utilization<sup>1,2</sup>

	Area		Harvested	Yield	Production	Total supply <sup>4/</sup>	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price <sup>5/</sup>
	Set aside <sup>3/</sup>	Planted										
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
<b>Wheat</b>												
1986/87	21.0	72.0	60.7	34.4	2,091	4,017	401	796	999	2,196	1,821	2.42
1987/88	23.9	65.8	55.9	37.7	2,108	3,945	280	808	1,598	2,684	1,261	2.57
1988/89	22.5	65.5	53.2	34.1	1,812	3,090	146	829	1,419	2,394	702	3.72
1989/90*	9.6	76.8	62.2	32.7	2,037	2,762	139	853	1,233	2,225	539	3.72
1990/91*	7.5	77.2	69.3	39.5	2,736	3,309	489	886	1,068	2,444	866	2.61
1991/92*	15.2	69.9	67.7	34.3	1,881	2,866	350	897	1,126	2,372	514	2.75-2.95
	Mil. acres			Lb./acre				Mil. cwt (rough equiv.)				\$/cwt
<b>Rice</b>												
1986/87	1.48	2.38	2.39	5,651	133.4	213.3	—	6/ 77.7	84.2	161.9	51.4	3.75
1987/88	1.57	2.36	2.33	5,555	129.8	184.0	—	6/ 80.4	72.2	152.8	31.4	7.27
1988/89	1.09	2.93	2.90	5,514	159.9	195.0	—	6/ 82.3	85.9	168.2	29.7	6.83
1989/90*	1.18	2.73	2.69	5,749	154.5	185.6	—	6/ 82.1	77.2	169.3	29.3	7.35
1990/91*	1.02	2.89	2.81	5,507	154.9	186.0	—	6/ 90.5	70.9	161.5	24.8	6.60-6.80
1991/92*	0.58	2.87	2.83	5,816	159.0	188.7	—	6/ 92.8	70.0	162.8	25.9	6.75-7.75
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
<b>Corn</b>												
1986/87	14.3	76.8	68.9	119.4	8,226	12,297	4,701	1,192	1,492	7,385	4,882	1.50
1987/88	23.1	68.2	69.5	119.8	7,131	12,018	4,812	1,229	1,718	7,757	4,259	1.94
1988/89	20.5	67.7	58.3	84.8	4,929	9,191	3,981	1,251	2,028	7,269	1,930	2.54
1989/90*	10.8	72.2	64.7	118.3	7,525	9,458	4,455	1,290	2,368	8,113	1,344	2.36
1990/91*	10.7	74.2	67.0	118.5	7,933	9,281	4,709	1,325	1,727	7,781	1,521	2.28
1991/92*	7.3	75.9	68.7	108.9	7,486	9,009	4,800	1,350	1,576	7,726	1,284	2.15-2.55
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
<b>Sorghum</b>												
1986/87	2.9	15.3	13.9	67.7	939	1,490	536	12	198	748	743	1.37
1987/88	4.1	11.8	10.5	69.4	731	1,474	555	25	232	612	683	1.70
1988/89	3.9	10.3	9.0	63.8	577	1,239	488	22	310	800	440	2.27
1989/90*	3.3	12.6	11.1	55.4	615	1,055	517	15	304	835	220	2.10
1990/91*	3.3	10.5	9.1	62.9	571	791	401	14	233	648	143	2.12
1991/92*	2.3	11.0	9.7	59.4	578	722	390	15	200	605	117	2.05-2.45
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
<b>Barley</b>												
1986/87	2.0	13.0	12.0	50.8	609	942	298	174	134	606	336	1.81
1987/88	2.9	10.9	10.0	52.4	521	869	253	174	121	548	321	1.81
1988/89	2.8	9.8	7.6	38.0	290	622	166	180	79	425	198	2.80
1989/90*	2.3	9.1	8.3	48.6	404	614	190	179	84	453	181	2.42
1990/91*	2.9	8.2	7.5	56.1	422	598	199	184	80	462	135	2.14
1991/92*	2.1	8.9	8.4	55.2	484	620	215	176	85	476	145	2.00-2.20
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
<b>Oats</b>												
1986/87	0.5	14.7	8.8	58.3	385	601	385	83	1	468	133	1.21
1987/88	0.8	17.9	6.9	54.3	374	552	358	81	1	440	112	1.56
1988/89	0.3	13.9	5.5	39.3	218	393	194	100	1	294	98	2.61
1989/90*	0.4	12.1	6.9	54.3	374	538	265	115	1	381	157	1.49
1990/91*	0.2	10.4	5.9	60.1	358	585	294	120	1	414	171	1.14
1991/92*	0.5	8.6	4.8	50.6	243	479	245	125	1	371	108	1.10-1.20
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
<b>Soybeans</b>												
1986/87	0	60.4	58.3	33.3	1,943	2,479	7/ 106	1,179	757	2,042	436	4.78
1987/88	0	58.2	57.2	33.9	1,938	2,375	7/ 97	1,174	802	2,073	302	5.68
1988/89	0	58.8	57.4	27.0	1,549	1,855	7/ 88	1,058	527	1,673	182	7.42
1989/90*	0	60.8	59.5	32.3	1,924	2,109	7/ 101	1,146	623	1,870	239	5.69
1990/91*	0	57.8	56.5	34.0	1,926	2,167	7/ 94	1,187	557	1,838	329	5.75
1991/92*	0	59.8	58.6	33.5	1,962	2,296	7/ 96	1,235	650	1,981	315	6.00-6.00
	Mil. lbs.							Mil. lbs.				\$/ Ctn./lb.
<b>Soybean oil</b>												
1986/87	—	—	—	—	12,783	13,745	—	10,833	1,187	12,020	1,725	15.40
1987/88	—	—	—	—	12,974	14,895	—	10,930	1,873	12,803	2,092	22.67
1988/89	—	—	—	—	11,737	13,967	—	10,591	1,661	12,252	1,715	21.10
1989/90*	—	—	—	—	13,004	14,741	—	12,083	1,353	13,436	1,305	22.30
1990/91*	—	—	—	—	13,408	14,728	—	12,237	725	12,962	1,766	21.00
1991/92*	—	—	—	—	13,874	16,650	—	12,300	1,050	13,350	2,300	17.0-20.0
	1,000 tons							1,000 tons				\$/ \$/ton
<b>Soybean meal</b>												
1986/87	—	—	—	—	27,758	27,970	—	20,387	7,343	27,730	240	183
1987/88	—	—	—	—	28,060	28,300	—	21,293	8,854	28,147	153	222
1988/89	—	—	—	—	24,943	25,100	—	19,857	5,270	24,927	173	233
1989/90*	—	—	—	—	27,719	27,900	—	22,558	5,024	27,582	318	174
1990/91*	—	—	—	—	28,325	28,663	—	23,178	5,200	28,378	285	170
1991/92*	—	—	—	—	29,285	29,575	—	23,275	6,000	29,275	300	165-185

See footnotes at end of table.

Table 17.—Supply &amp; Utilization, continued

	Area		Harvested	Yield	Production	Total supply <sup>4/</sup>	Feed and residual	Other domestic use	Exports	Total use	Ending Stocks	Farm price <sup>5/</sup>
	Set Aside <sup>3/</sup>	Planted										
	Mil. acres		Lb./acre		Mil. bales							
Cotton 10/												
1986/87	4.2	10.0	8.5	552	9.7	19.1	—	7.5	6.7	14.1	6.0	52.40
1987/88	4.0	10.4	10.0	706	14.8	19.8	—	7.6	6.0	14.2	5.8	64.30
1988/89	2.2	12.5	11.9	619	15.4	21.2	—	7.8	6.1	13.9	7.1	58.00
1989/90*	3.5	10.6	9.5	614	12.2	19.3	—	8.8	7.7	16.5	3.0	66.20
1990/91*	2.0	12.3	11.7	634	15.5	18.5	—	8.7	7.8	16.4	2.3	68.10
1991/92*	0.9	14.1	13.4	649	18.2	20.6	—	9.1	7.2	16.3	4.4	11/

\*November 12, 1991 Supply & Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats; August 1 for cotton & rice; September 1 for soybeans, corn, & sorghum; October 1 for soybean meal & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2,204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, & 4.59 480-pound bales of cotton. 3/ Includes diversion, PIR, acreage reduction, 50-92, & 0-92 programs. Data for 1991/92 are preliminary. 4/ Includes imports. 5/ Marketing-year weighted average price received by farmers. Does not include an allowance for loans outstanding & Government Purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Simple average of crude soybean oil, Decatur. 9/ Simple average of 44 percent, Decatur. 10/ Upland & extra long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. 11/ USDA is prohibited from publishing cotton price projections. — = not available or not applicable.

Information contact: Commodity Economics Division, Crops Branch (202) 219-0840.

Table 18.—Cash Prices, Selected U.S. Commodities

	Marketing year 1/				1990		1991			
	1986/87	1987/88	1988/89	1989/90	Sept	May	June	July	Aug	Sept
Wheat, No. 1 HRW, Kansas City (\$/bu.) 2/	2.72	2.96	4.17	4.22	2.83	3.04	2.99	2.91	3.10	3.31
Wheat, DNS, Minneapolis (\$/bu.) 3/	3.07	3.15	4.36	4.16	2.84	3.10	3.04	2.94	3.10	3.21
Rice, S.W. La. (\$/cwt) 4/	10.25	19.25	14.85	15.55	13.95	16.50	17.25	16.95	16.40	16.50
Corn, no. 2 yellow, 30 day, Chicago (\$/bu.)	1.64	2.14	2.68	2.52	2.33	2.50	2.43	2.40	2.52	2.48
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	2.73	3.40	4.17	4.24	3.89	4.13	4.02	4.05	4.22	4.24
Barley, feed, Duluth (\$/bu.) 5/	1.44	1.78	2.32	2.20	2.01	2.13	2.02	1.89	1.92	2.08
Barley, malting, Minneapolis (\$/bu.)	1.89	2.04	4.11	3.20	2.32	2.41	2.26	2.14	2.14	2.21
U.S. price, SLM, 1-1/16 in. (cts./lb.) 6/	53.2	63.1	57.7	69.8	71.0	83.9	79.1	71.3	66.4	62.4
Northern Europe prices index (cts./lb.) 7/	62.0	72.3	66.4	82.3	81.4	84.4	83.8	80.7	72.9	69.9
U.S. M 1-3/32 in. (cts./lb.) 8/	61.8	75.3	69.2	83.6	81.7	99.3	—	—	75.5	73.1
Soybeans, no. 1 yellow, 30 day, Chicago (\$/bu.)	5.03	6.67	7.41	5.86	6.19	5.71	5.55	5.39	5.65	5.90
Soybean oil, crude, Decatur (cts./lb.)	15.40	22.70	21.10	22.30	24.50	20.20	19.70	19.10	20.20	20.50
Soybean meal, 44% protein, Decatur (\$/ton)	162.70	221.90	233.00	173.75	176.90	171.00	171.10	169.70	177.60	191.90

1/ Beginning June 1 for wheat & barley; Aug. 1 for rice & cotton; Sept. 1 for corn, sorghum & soybeans; Oct. 1 for soybean meal & oil. 2/ Ordinary protein. 3/ 14% protein. 4/ Long grain, milled basis. 5/ Beginning Mar. 1987 reporting point changed from Minneapolis to Duluth. 6/ Average spot market. 7/ Liverpool Cotton (A) index; average of five lowest prices of 11 selected growths. 8/ Memphis territory growths. — = not available.

Information contact: Joy Harwood (202) 219-0840.

Table 19.—Farm Programs, Price Supports, Participation &amp; Payment Rates

	Target price	Basic loan rate	Findley or announced loan rate 1/	Payment rates			Effective base acres 2/	Program 3/	Participation rate 4/
				Paid land diversion					
				Deficiency	Mandatory	Optional			
				\$/bu.			Mill. acres	Percent of base	Percent of base
Wheat									
1986/87 5/	4.38	3.00	2.40	1.98	1.10	2.00	91.8	22.5/2.5/5-10	85
1987/88	4.38	2.85	2.28	1.81	—	—	87.6	27.5/0/0	88
1988/89	4.23	2.78	2.21	0.69	—	—	84.8	27.5/0/0	88
1989/90	4.10	2.58	2.08	0.32	—	—	82.3	10/0/0	78
1990/91 6/	4.00	2.44	1.95	1.28	—	—	80.5	7/ 5/0/0	83
1991/92	4.00	2.52	2.04	1.47	—	—	79.3	15/0/0	85
1992/93	4.00	2.58	2.21	—	—	—	—	6/0/0	—
				\$/cwt					
Rice									
1985/86	11.90	8.00	8/ 3.18	3.90	3.50	—	4.2	20/15/0	90
1986/87 5/	11.90	7.20	8/ 3.94	4.70	—	—	4.2	35/0/0	94
1987/88	11.88	6.84	8/ 5.79	4.82	—	—	4.2	35/0/0	96
1988/89	11.18	6.63	8/ 6.21	4.31	—	—	4.2	25/0/0	94
1989/90	10.80	6.50	8/ 5.71	3.58	—	—	4.2	25/0/0	95
1990/91 6/	10.71	6.50	8/ 5.08	4.21	—	—	4.2	20/0/0	94
1991/92	10.71	6.50	—	3.78	—	—	4.2	5/0/0	95
				\$/bu.					
Corn									
1986/87 5/	3.03	2.40	1.92	1.11	—	—	81.7	17.5/2.5/0	86
1987/88	3.03	2.28	1.82	1.09	0.73	2.00	81.5	20/0/15	91
1988/89	2.93	2.21	1.77	0.38	—	1.75	82.9	20/0/10	87
1989/90	2.84	2.08	1.85	0.58	—	—	82.7	10/0/0	80
1990/91 6/	2.75	1.98	1.57	0.53	—	—	82.6	10/0/0	77
1991/92	2.75	1.89	1.82	0.58	—	—	82.9	7.5/0/0	77
1992/93	2.75	2.01	1.72	—	—	—	—	5/0/0	—
				\$/bu.					
Sorghum									
1986/87 5/	2.88	2.28	1.82	1.08	0.65	—	19.0	9/ 17.5/2.5/0	74
1987/88	2.88	2.17	1.74	1.14	—	1.90	17.4	20/0/15	85
1988/89	2.78	2.10	1.68	0.48	—	1.65	18.8	20/0/10	82
1989/90	2.70	1.99	1.67	0.68	—	—	18.2	10/0/0	71
1990/91 6/	2.61	1.88	1.49	0.58	—	—	15.4	10/0/0	70
1991/92	2.61	1.80	1.54	0.58	—	—	13.6	7.5/0/0	77
1992/93	2.61	1.91	1.63	—	—	—	—	5/0/0	—
				\$/bu.					
Barley									
1986/87 5/	2.60	1.95	1.56	0.99	0.57	—	12.4	9/ 17.5/2.5/0	72
1987/88	2.60	1.88	1.49	0.79	—	1.80	12.5	20/0/15	85
1988/89	2.51	1.80	1.44	0.00	—	1.40	12.4	20/0/10	79
1989/90	2.43	1.68	1.34	0.00	—	—	12.3	10/0/0	87
1990/91 6/	2.38	1.60	1.28	0.22	—	—	11.9	10/0/0	88
1991/92	2.38	1.54	1.32	0.47	—	—	11.5	7.5/0/0	78
1992/93	2.38	1.64	1.40	—	—	—	—	5/0/0	—
				\$/bu.					
Oats									
1986/87 5/	1.60	1.23	0.99	0.39	0.36	—	9.2	9/ 17.5/2.5/0	38
1987/88	1.60	1.17	0.94	0.20	—	0.80	8.4	20/0/15	45
1988/89	1.55	1.14	0.90	0.00	—	—	7.9	5/0/0	30
1989/90	1.50	1.08	0.85	0.00	—	—	7.6	5/0/0	18
1990/91 6/	1.45	1.01	0.81	0.33	—	—	7.5	5/0/0	09
1991/92	1.45	0.97	0.83	0.15	—	—	7.3	0/0/0	38
1992/93	1.45	1.03	0.88	—	—	—	—	0/0/0	—
				\$/bu.					
Soybeans 10/									
1986/87 5/	—	—	4.77	—	—	—	—	—	—
1987/88	—	—	4.77	—	—	—	—	—	—
1988/89	—	—	4.77	—	—	—	—	—	—
1989/90	—	—	4.53	—	—	—	—	11/ 10/25	—
1990/91 6/	—	—	4.50	—	—	—	—	11/ 0/25	—
1991/92	—	—	5.02	—	—	—	—	11/ 0/25	—
1992/93	—	—	5.02	—	—	—	—	11/ 0/25	—
				Cts./lb.					
Upland cotton									
1986/87 5/	81.0	55.00	12/ 44.00	26.00	—	—	15.5	25/0/0	92
1987/88	79.4	52.25	13/ 60.00	17.3	—	—	14.5	25/0/0	93
1988/89	75.9	51.80	13/ 51.89	19.4	—	—	14.5	12.5/0/0	89
1989/90	73.4	50.00	13/ 65.05	13.1	—	—	14.6	25/0/0	89
1990/91 6/	72.9	50.27	13/ 53.00	7.3	—	—	14.4	12.5/0/0	88
1991/92 14/	72.9	50.77	13/ —	10.0	—	—	14.6	5/0/0	84
1992/93	72.9	52.35	13/ —	—	—	—	—	10/0/0	—

1/ There are no Findley loan rates for rice or cotton. See footnotes 8/, 12/, and 13/. 2/ National effective crop acreage base as determined by ASCS. Net of CRP.

3/ Program requirements for participating producers (mandatory acreage reduction program/mandatory paid land diversion/optional paid land diversion). Acres idled must be devoted to a conserving use to receive program benefits. 4/ Percentage of effective base acres enrolled in acreage reduction programs. 5/ Payments and loans received in cash were reduced by 4.3 percent in 1986/87 due to Gramm-Rudman-Hollings. 6/ Payments and loans were reduced by 1.4 percent in 1990/91 due to Gramm-Rudman-Hollings. Budget Reconciliation Act reductions to deficiency payment rates were also in effect in that year. Data do not include these reductions. 7/ Under 1990 modified contracts, participating producers plant up to 105 percent of their wheat base acres. For every acre planted above 95 percent of base, the acreage used to compute deficiency payments was cut by 1 acre. 8/ A marketing loan has been in effect for rice since 1985/86. Loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly). However, loans cannot be repaid at less than a specified fraction of the loan rate. Data refer to annual average adjusted world prices. 9/ The sorghum, oats, and barley programs are the same as for corn except as indicated. 10/ There are no target prices, base acres, acreage reduction programs, or deficiency payment rates for soybeans. 11/ Nominal percentage of program crop base acres permitted to shift into soybeans without loss of base. 12/ A marketing loan has been in effect for cotton since 1986/87. The loan repayment rate was fixed at 80 percent of the loan rate in 1986/87 (Plan A). 13/ In 1987/88 and after, loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly; Plan B). Starting in 1991/92, loans cannot be repaid at less than 70 percent of the loan rate. Data refer to annual average adjusted world prices. 14/ A marketing certificate program was implemented on Aug. 1, 1991.

— = not available.



Table 20.—Fruit

	1982	1983	1984	1985	1986	1987	1988	1989	1990 P
<b>Citrus 1/</b>									
Production (1,000 ton)	12,139	13,682	10,832	10,525	11,058	11,993	12,761	13,186	11,324
Per capita consumpt. (lbs.) 2/	24.8	29.5	24.0	22.6	26.0	25.8	26.4	25.4	22.4
<b>Noncitrus 3/</b>									
Production (1,000 tons)	14,658	14,168	14,301	14,191	13,874	16,011	15,893	16,321	15,572
Per capita consumpt. (lbs.) 2/	62.8	63.8	67.7	66.7	69.8	75.4	72.7	74.3	69.8
	1991								
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>F.o.b. shipping point prices</b>									
Apples (\$/carton) 4/	14.06	14.00	14.00	14.00	14.00	14.00	14.00	14.00	19.20
Pears (\$/box) 5/	14.00	13.85	13.48	13.74	15.12	18.90	—	—	13.00
<b>Grower prices</b>									
Oranges (\$/box) 6/	6.62	5.98	7.41	7.37	7.95	21.35	19.48	20.81	21.97
Grapefruit (\$/box) 6/	5.66	4.50	5.43	5.10	4.91	5.44	4.82	2.86	1.38
<b>Stocks, ending</b>									
Fresh apples (mil. lbs.)	2,694.8	2,100.7	1,569.8	1,060.9	690.7	385.8	193.0	17.7	2,694.1
Fresh pears (mil. lbs.)	191.1	145.4	95.0	50.8	14.7	—	12.8	137.5	460.0
Frozen fruits (mil. lbs.)	760.7	679.6	635.2	566.7	549.8	590.6	792.6	833.2	825.6
Frozen orange juice (mil. lbs.)	1,195.8	1,199.5	1,236.7	1,363.2	1,304.7	1,110.6	967.7	876.9	770.6

1/ 1990 indicated 1989/90 season. 2/ Fresh per capita consumption. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. P = preliminary. — = not available.

Information contact: Wynne Napper (202) 219-0884.

Table 21.—Vegetables

	Calendar year									
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
<b>Production</b>										
Total vegetables (1,000 cwt)	392,343	430,795	403,509	456,334	453,030	448,629	478,381	466,779	542,437	561,768
Fresh (1,000 cwt) 1/ 3/	183,456	183,451	185,782	201,817	203,549	203,165	220,539	228,397	239,281	239,114
Processed (tons) 2/ 3/	10,444,330	11,887,170	10,886,350	12,725,880	12,474,040	12,273,200	12,892,100	12,019,110	15,157,790	16,132,680
Mushrooms (1,000 lbs.) 4/	517,146	490,826	581,531	595,681	587,958	614,393	631,819	667,759	714,992	749,488
Potatoes (1,000 cwt)	340,623	355,131	333,726	362,039	406,609	361,743	389,320	356,438	370,444	402,110
Sweetpotatoes (1,000 cwt)	12,799	14,833	12,083	12,602	14,573	12,368	11,611	10,945	11,358	12,594
Dry edible beans (1,000 cwt)	32,751	25,563	15,520	21,070	22,175	22,886	26,031	19,253	23,729	32,429
	1990									
	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
<b>Shipments</b>										
Fresh (1,000 cwt) 5/	17,112	23,352	19,405	19,215	20,661	30,842	26,747	29,105	17,211	15,711
Potatoes (1,000 cwt)	10,434	14,681	11,322	12,337	14,497	15,695	10,395	10,720	8,796	9,541
Sweetpotatoes (1,000 cwt)	545	399	400	486	283	291	188	151	93	220

1/ Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 2/ Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, & cauliflower. 3/ Asparagus & cucumber estimates were not available for 1982 & 1983. 4/ Fresh & processing mushrooms only. Excludes specialty varieties. Crop year July 1 - June 30. 5/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons.

Information contacts: Gary Lucier or Cathy Greene (202) 219-0884.

Table 22.—Other Commodities

	Annual					1990			1991	
	1988	1987	1988	1989	1990	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June
<b>Sugar</b>										
Production 1/	6,257	7,309	7,087	6,840	6,319	572	652	3,419	2,206	626
Deliveries 1/	7,786	8,167	8,188	8,309	8,633	2,056	2,316	2,315	2,019	2,103
Stocks, ending 1/	3,225	3,195	3,132	2,946	2,642	2,165	1,210	2,729	3,530	2,487
<b>Coffee</b>										
Composite green price N.Y. (cts/lb.)	185.18	109.14	115.59	95.17	76.93	78.55	79.10	76.85	74.94	72.13
Imports, green bean equiv. (mil. lbs.) 2/	2,596	2,638	2,072	2,630	2,714	702	530	616	748	563
	Annual					1990			1991	
	1988	1989	1990	Mar	Oct	Nov	Dec	Jan	Feb	Mar
<b>Tobacco</b>										
Prices at auctions 3/										
Flue-cured (\$/lb.)	1.61	—	—	—	1.72	1.65	—	—	—	—
Burley (\$/lb.)	1.61	—	1.71	—	—	1.75	1.75	1.78	177.0	—
Domestic consumption 4/										
Cigarettes (bil.)	562.5	540.1	523.1	48.5	44.0	45.6	34.1	34.5	39.4	47.1
Large cigars (mil.)	2,531	2,467.6	2,343.4	188.6	191.1	209.6	157.9	152.1	144.9	162.5

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. — = not available.

Information contacts: sugar, Peter Buzzanell (202) 219-0886, coffee, Fred Gray (202) 219-0888, tobacco, Verner Grise (202) 219-0890.

## World Agriculture

Table 23.—World Supply &amp; Utilization of Major Crops, Livestock &amp; Products

	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91 P	1991/92 F
	Million units						
<b>Wheat</b>							
Area (hectares)	230.2	228.3	219.9	217.9	226.5	232.1	223.5
Production (metric tons)	501.0	531.1	502.4	501.3	537.9	583.3	547.4
Exports (metric tons) 1/	84.8	91.3	108.1	97.2	96.1	83.5	104.4
Consumption (metric tons) 2/	498.6	523.1	531.2	531.8	534.4	572.1	557.7
Ending stocks (metric tons) 3/	169.7	177.6	148.8	118.3	121.7	142.9	132.6
<b>Coarse grains</b>							
Area (hectares)	342.0	337.0	324.5	326.1	323.0	318.1	321.6
Production (metric tons)	844.0	833.0	795.2	731.3	802.6	834.0	801.5
Exports (metric tons) 1/	83.2	83.7	82.5	94.2	100.0	84.8	83.2
Consumption (metric tons) 2/	779.7	807.2	815.6	795.6	828.2	822.6	808.7
Ending stocks (metric tons) 3/	208.2	234.0	213.6	149.3	123.9	135.3	128.1
<b>Rice, milled</b>							
Area (hectares)	145.0	145.4	141.7	145.6	146.4	147.1	146.0
Production (metric tons)	319.1	319.0	314.5	331.0	344.5	352.2	345.6
Exports (metric tons) 4/	12.6	12.9	11.9	15.1	12.0	12.4	12.9
Consumption (metric tons) 2/	319.7	323.0	320.2	328.7	337.9	347.6	346.5
Ending stocks (metric tons) 3/	55.4	51.4	45.6	47.9	54.5	59.1	58.3
<b>Total grains</b>							
Area (hectares)	717.2	710.7	686.1	689.6	695.9	697.3	691.1
Production (metric tons)	1,664.1	1,683.1	1,612.1	1,563.6	1,685.0	1,779.5	1,694.5
Exports (metric tons) 1/	180.6	187.9	200.5	206.5	208.1	190.7	200.5
Consumption (metric tons) 2/	1,598.0	1,653.3	1,667.0	1,656.1	1,700.5	1,742.3	1,712.9
Ending stocks (metric tons) 3/	433.3	463.0	408.0	315.5	300.1	337.3	319.0
<b>Oilseeds</b>							
Crush (metric tons)	155.1	161.8	168.5	166.4	173.2	178.6	180.5
Production (metric tons)	196.2	194.9	210.6	204.1	214.1	217.4	222.5
Exports (metric tons)	34.5	37.7	39.5	32.0	35.9	34.0	35.7
Ending stocks (metric tons)	26.8	23.3	24.0	22.2	23.3	22.0	23.2
<b>Meals</b>							
Production (metric tons)	105.0	110.7	115.4	112.2	117.9	120.8	122.3
Exports (metric tons)	34.4	36.7	35.8	37.7	38.8	38.8	39.1
<b>Oils</b>							
Production (metric tons)	49.4	50.4	53.3	53.9	57.6	58.6	60.3
Exports (metric tons)	16.4	16.9	17.5	18.3	20.0	20.1	20.0
<b>Cotton</b>							
Area (hectares)	31.7	29.5	31.0	33.7	31.6	33.1	34.2
Production (bales)	80.4	70.7	81.0	84.6	80.0	87.0	91.6
Exports (bales)	20.3	26.0	23.2	25.9	24.0	23.4	23.9
Consumption (bales)	76.9	82.8	84.1	85.2	86.7	85.5	87.7
Ending stocks (bales)	48.5	35.9	32.9	32.1	26.4	27.9	31.4
	1985	1986	1987	1988	1989	1990 P	1991 F
<b>Red meat</b>							
Production (metric tons)	105.5	108.6	111.5	115.2	118.9	118.3	119.6
Consumption (metric tons)	103.4	107.4	109.7	113.4	115.2	118.8	118.1
Exports (metric tons) 1/	6.3	6.7	6.7	6.9	7.4	6.9	7.2
<b>Poultry 5/</b>							
Production (metric tons)	26.2	29.3	31.3	32.9	34.2	35.7	37.3
Consumption (metric tons)	25.8	28.9	30.8	32.5	33.8	35.1	36.6
Exports (metric tons) 1/	1.2	1.2	1.5	1.7	1.8	2.1	2.2
<b>Dairy</b>							
Milk production (metric tons)	413.4	425.9	425.9	429.1	435.0	440.9	442.0

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1986 data correspond with 1985/86, etc. 5/ Poultry excludes the Peoples Republic of China before 1986. P = preliminary. F = forecast.

Information contacts: Crops, Carol Whitton (202) 219-0824; red meat & poultry, Linda Bailey (202) 219-1285; dairy, Sara Short (202) 219-0770.

## U.S. Agricultural Trade

**Table 24.—Prices of Principal U.S. Agricultural Trade Products**

	Annual			1990		1991				
	1988	1989	1990	Sept	Apr	May	June	July	Aug	Sept
<b>Export commodities</b>										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.97	4.65	3.72	3.14	3.31	3.35	3.29	3.22	3.44	3.63
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.73	2.85	2.79	2.60	2.91	2.70	2.86	2.89	2.81	2.77
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.52	2.70	2.65	2.52	2.79	2.62	2.51	2.56	2.69	2.71
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	7.81	7.06	6.24	6.45	6.20	6.09	6.03	5.79	6.07	6.26
Soybean oil, Decatur (cts./lb.)	23.52	20.21	22.75	23.89	21.48	20.29	19.55	18.87	20.09	20.02
Soybean meal, Decatur (\$/ton)	234.75	216.59	189.37	175.79	171.32	171.14	171.43	169.70	181.32	192.23
Cotton, 8-market avg. spot (cts./lb.)	57.25	63.78	71.25	71.01	79.93	83.94	79.05	71.33	66.44	62.54
Tobacco, avg. price at auction (cts./lb.)	147.82	161.74	168.08	170.66	171.12	171.12	171.12	170.66	165.49	178.48
Rice, f.o.b. mill, Houston (\$/cwt)	19.60	15.68	15.52	14.50	18.00	18.00	17.00	17.00	17.00	17.00
Inedible tallow, Chicago (cts./lb.)	16.64	14.71	13.54	12.00	13.57	12.25	12.36	12.96	14.00	13.50
<b>Import commodities</b>										
Coffee, N.Y. spot (\$/lb.)	1.21	1.04	0.81	0.67	0.80	0.78	0.71	0.68	0.66	0.68
Rubber, N.Y. spot (cts./lb.)	59.20	50.65	48.28	48.43	45.92	45.18	45.26	44.59	44.45	44.45
Cocoa beans, N.Y. (\$/lb.)	0.69	0.55	0.55	0.59	0.50	0.47	0.45	0.45	0.49	0.58

Information contact: Mary Teymourlan (202) 219-0824.

**Table 25.—Indexes of Real Trade-Weighted Dollar Exchange Rates <sup>1/</sup>**

	1990	1991									
	Dec	Jan	Feb	Mar	Apr	May P	June P	July P	Aug P	Sept P	Oct P
	1985 = 100										
Total U.S. trade <sup>2/</sup>	60.8	61.0	59.8	63.5	66.3	66.7	68.9	69.7	68.2	69.3	70.7
<b>Agricultural trade</b>											
U.S. markets	75.3	75.5	74.8	76.5	78.0	78.2	79.4	80.6	79.8	79.7	81.1
U.S. competitors	73.5	74.9	73.9	75.2	78.3	78.6	77.3	77.6	77.2	77.8	78.2
<b>Wheat</b>											
U.S. markets	92.4	93.7	93.0	94.0	94.8	95.3	96.8	98.7	98.4	98.6	99.9
U.S. competitors	88.0	89.2	88.7	70.3	71.1	71.1	71.7	72.0	71.3	71.7	71.9
<b>Soybeans</b>											
U.S. markets	63.7	64.0	62.8	65.2	67.9	68.3	70.0	71.0	70.0	70.1	71.9
U.S. competitors	53.1	59.0	57.7	58.9	57.1	57.4	57.5	57.4	57.3	57.3	57.3
<b>Corn</b>											
U.S. markets	69.9	69.9	68.8	70.9	71.7	71.9	73.0	74.5	74.0	73.2	75.0
U.S. competitors	57.1	61.3	60.7	63.1	64.7	65.0	65.9	66.4	65.8	66.8	67.4
<b>Cotton</b>											
U.S. markets	73.0	73.0	72.0	74.1	74.6	74.8	75.8	77.2	76.8	76.3	77.7
U.S. competitors	62.8	62.8	61.8	60.7	60.6	60.2	79.8	79.5	78.7	78.2	77.7

<sup>1/</sup> Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. <sup>2/</sup> Federal Reserve Board Index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. P = preliminary.

Information contact: Tim Baxter, David Stallings (202) 219-0716.

**Table 26.—Trade Balance**

	Fiscal year <sup>1/</sup>								Aug
	1984	1985	1986	1987	1988	1989	1990	1991 F	1991
	\$ million								
<b>Exports</b>									
Agricultural	38,027	31,201	26,312	27,876	35,318	39,811	40,203	37,500	2,841
Nonagricultural	170,014	179,236	179,291	202,911	258,656	301,248	328,075	—	28,857
Total <sup>2/</sup>	208,041	210,437	205,603	230,787	293,972	340,859	368,279	—	31,698
<b>Imports</b>									
Agricultural	18,916	19,740	20,884	20,650	21,014	21,478	22,561	22,500	1,708
Nonagricultural	297,736	313,722	342,846	367,374	409,138	441,075	458,100	—	38,743
Total <sup>3/</sup>	316,652	333,462	363,730	388,024	430,152	462,551	480,661	—	40,449
<b>Trade balance</b>									
Agricultural	19,111	11,461	5,428	7,226	14,302	18,135	17,642	15,000	1,135
Nonagricultural	-127,722	-134,486	-163,555	-164,463	-150,482	-139,827	-132,024	—	-9,888
Total	-108,611	-123,025	-158,127	-157,237	-136,180	-121,692	-114,382	—	-8,751

<sup>1/</sup> Fiscal years begin October 1 & end September 30. Fiscal year 1990 began Oct. 1, 1989 & ended Sept. 30, 1990. <sup>2/</sup> Domestic exports including Department of Defense shipments (F.A.S. value). <sup>3/</sup> Imports for consumption (customs value). F = forecast. — = not available.

Information contact: Stephen MacDonald (202) 219-0822.



Table 27.—U.S. Agricultural Exports &amp; Imports

	Fiscal year*			Aug	Fiscal year*			Aug
	1989	1990	1991 F	1991	1989	1990	1991 F	1991
	1,000 units				\$ million			
EXPORTS								
Animals, live (no.) 1/	757	685	—	140	475	361	—	63
Meats & preps., excl. poultry (mt)	869	876	2/ 700	77	2,355	2,457	—	221
Dairy products (mt) 1/	192	83	—	6	475	358	400	29
Poultry meats (mt)	419	564	600	50	507	655	—	61
Fats, oils, & greases (mt)	1,377	1,264	1,100	100	531	459	—	35
Hides & skins incl. furskins	—	—	—	—	1,713	1,796	—	104
Cattle hides, whole (no.) 1/	26,260	24,777	—	1,769	1,360	1,365	—	90
Mink pelts (no.) 1/	3,073	5,128	—	120	91	116	—	2
Grains & feeds (mt)	114,709	112,911	—	8,316	16,830	15,697	3/ 12,500	1,060
Wheat (mt)	37,660	27,998	27,000	2,624	6,010	4,209	4/ 3,000	287
Wheat flour (mt)	1,176	982	1,000	84	255	203	—	16
Rice (mt)	3,041	2,487	2,400	148	955	830	800	52
Feed grains, incl. products (mt)	60,956	69,429	51,700	4,507	7,376	8,094	5,700	503
Feeds & fodders (mt)	11,088	11,134	5/ 11,400	838	1,849	1,827	—	141
Other grain products (mt)	790	971	—	115	385	534	—	62
Fruits, nuts, & preps. (mt)	2,555	2,873	—	223	2,394	2,789	—	255
Fruit juices incl.	—	—	—	—	—	—	—	—
froz. (1,000 hectoliters) 1/	4,998	5,975	—	481	265	328	—	25
Vegetables & preps. (mt)	1,666	2,242	—	147	1,542	2,079	—	179
Tobacco, unmanufactured (mt)	209	218	200	13	1,249	1,359	1,500	84
Cotton, excl. lintere (mt)	1,441	1,666	1,800	40	2,040	2,704	3,000	69
Seeds (mt)	485	564	—	44	499	574	600	34
Sugar, cane or beet (mt)	368	447	—	67	134	187	—	23
Oilseeds & products (mt)	21,052	23,770	—	1,467	6,629	6,099	5,700	382
Oilseeds (mt)	14,592	17,696	—	935	4,363	4,245	—	227
Soybeans (mt)	14,093	17,221	15,200	899	4,085	3,840	3,500	202
Protein meal (mt)	4,963	4,772	—	409	1,358	1,024	—	86
Vegetable oils (mt)	1,498	1,302	—	112	906	830	—	69
Essential oils (mt)	13	14	—	1	171	182	—	14
Other	322	329	—	6	1,802	2,119	—	202
Total	145,878	147,831	129,000	10,547	39,611	40,293	37,500	2,841
IMPORTS								
Animals, live (no.) 1/	2,485	2,940	—	157	740	1,053	1,200	49
Meats & preps., excl. poultry (mt)	1,091	1,142	—	102	2,432	2,848	—	259
Beef & veal (mt)	668	754	800	69	1,525	1,842	1,800	175
Pork (mt)	371	340	340	29	778	888	900	73
Dairy products (mt) 1/	211	254	—	22	834	951	800	77
Poultry & products 1/	—	—	—	—	130	129	—	12
Fats, oils, & greases (mt)	14	19	—	4	14	15	—	1
Hides & skins, incl. furskins 1/	—	—	—	—	241	182	—	9
Wool, unmanufactured (mt)	62	47	—	4	319	187	—	13
Grains & feeds (mt)	3,467	3,471	3,800	411	1,139	1,181	1,200	110
Fruits, nuts, & preps., excl. juices (mt)	5,035	5,331	5,345	403	2,269	2,486	—	193
Bananas & plantains (mt)	3,039	3,236	3,275	302	851	926	1,000	88
Fruit juices (1,000 hectoliters) 1/	27,747	33,922	30,000	1,933	792	1,001	—	52
Vegetables & preps. (mt)	2,217	2,242	—	31	1,959	2,264	2,100	138
Tobacco, unmanufactured (mt)	171	193	220	19	521	588	600	57
Cotton, unmanufactured (mt)	13	30	—	2	8	20	—	2
Seeds (mt)	158	171	165	7	187	164	200	12
Nursery stock & cut flowers 1/	—	—	—	—	466	519	—	46
Sugar, cane or beet (mt)	1,657	1,769	—	120	620	734	—	48
Oilseeds & products (mt)	1,917	2,034	—	134	946	964	1,000	72
Oilseeds (mt)	424	534	—	26	159	206	—	9
Protein meal (mt)	359	310	—	43	65	48	—	6
Vegetable oils (mt)	1,133	1,189	—	65	721	710	—	57
Beverages excl. fruit juices (1,000 hectoliters) 1/	13,967	13,543	—	1,235	1,815	1,867	—	158
Coffee, tea, cocoa, spices	1,867	2,201	3,150	181	3,896	3,465	—	236
Coffee, incl. products (mt)	1,084	1,290	1,150	83	2,467	1,997	1,900	123
Cocoa beans & products (mt)	564	698	650	58	969	1,042	1,000	79
Rubber & allied gums (mt)	927	840	820	54	1,051	712	700	44
Other	—	—	—	—	1,097	1,231	—	118
Total	—	—	—	—	21,476	22,581	22,500	1,706

\* Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1991 began Oct. 1, 1990 & ended Sept. 30, 1991. 1/ Not included in total volume and also other dairy products for 1989 & 1990. 2/ Forecasts for footnoted items 2/–8/ are based on slightly different groups of commodities. Fiscal 1990 exports of categories used in the 1991 forecasts were 2/ 676,000 m. tons. 3/ 16,014 million. 4/ 4,426 million i.e. includes flour. 5/ 11,065 million m. tons. F = forecast. — = not available.

Information contact: Stephen MacDonald (202) 219-0822.

Table 28.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*			Aug 1991	Change from year* earlier			Aug 1991
	1989	1990	1991 F		1989	1990	1991 F	
	\$ million				Percent			
<b>WESTERN EUROPE</b>	7,049	7,318	7,100	429	-12	4	-3	5
European Community (EC-12)	6,539	6,825	6,600	384	-13	4	-3	3
Belgium-Luxembourg	431	431	—	32	0	0	—	47
France	474	469	—	31	-18	-1	—	9
Germany, Fed. Rep.	918	1,096	—	82	-28	19	—	63
Italy	609	704	—	19	-15	16	—	-49
Netherlands	1,847	1,637	—	78	-12	-11	—	-29
United Kingdom	736	781	—	73	-10	3	—	49
Portugal	307	338	—	11	-30	10	—	-50
Spain, Incl. Canary Islands	850	976	—	28	0	15	—	-7
Other Western Europe	510	493	500	45	-2	-3	0	16
Switzerland	166	171	—	9	-14	3	—	-16
<b>EASTERN EUROPE</b>	422	557	300	24	-25	32	-40	-35
German Dem. Rep.	72	58	—	0	7	-20	—	0
Poland	45	101	—	2	-73	124	—	-62
Yugoslavia	78	129	—	1	-27	69	—	-94
Romania	62	234	—	11	-33	277	—	-17
<b>USSR</b>	3,299	3,000	1,900	170	70	-9	-37	1,474
<b>ASIA</b>	18,674	18,131	16,500	1,204	17	-3	-9	-20
West Asia (Mideast)	2,273	1,996	1,800	90	19	-12	-10	-39
Turkey	238	260	—	6	98	9	—	38
Iraq	791	497	0	0	8	-37	-100	0
Israel, Incl. Gaza & W. Bank	331	285	—	11	-1	-14	—	-68
Saudi Arabia	482	502	600	45	4	4	20	-33
South Asia	1,181	729	—	39	44	-37	—	-48
Bangladesh	213	125	—	8	99	-41	—	-63
India	243	115	—	4	-31	-53	—	-63
Pakistan	599	391	100	20	117	-35	-75	-49
China	1,496	909	700	43	144	-39	-22	-55
Japan	8,148	8,106	7,800	588	12	-1	-4	-7
Southeast Asia	976	1,184	—	84	-4	21	—	-7
Indonesia	216	277	—	14	-9	28	—	-45
Philippines	344	351	400	32	0	2	0	14
Other East Asia	4,620	5,207	4,700	360	7	13	-10	-22
Taiwan	1,594	1,818	1,700	156	1	14	-6	12
Korea, Rep.	2,453	2,703	2,200	152	9	10	-19	-39
Hong Kong	572	685	800	52	17	19	14	-28
<b>AFRICA</b>	2,280	2,009	1,700	164	0	-12	-15	30
North Africa	1,796	1,524	1,300	116	8	-15	-13	41
Morocco	216	166	—	8	12	-23	—	-12
Algeria	549	488	400	35	2	-11	-20	31
Egypt	955	781	600	68	22	-20	-25	77
Sub-Sahara	483	484	400	48	-21	0	0	11
Nigeria	30	32	—	4	-32	7	—	284
Rep. S. Africa	57	81	—	8	-33	43	—	158
<b>LATIN AMERICA &amp; CARIBBEAN</b>	5,440	5,157	5,400	479	24	-5	4	0
Brazil	149	105	300	44	-15	-30	200	394
Caribbean Islands	1,007	1,007	—	82	16	0	—	-3
Central America	448	465	—	56	8	4	—	13
Colombia	139	147	—	15	-22	6	—	11
Mexico	2,757	2,666	2,800	227	60	-3	4	-2
Peru	81	187	—	10	-53	132	—	-13
Venezuela	587	345	400	23	-2	-41	33	-53
<b>CANADA</b>	2,179	3,715	4,300	347	10	70	18	0
<b>OCEANIA</b>	268	317	300	24	13	18	0	-19
<b>TOTAL</b>	39,611	40,203	37,500	2,841	12	1	-8	-3
Developed countries	17,971	19,766	19,800	1,403	1	10	0	-4
Less developed countries	16,422	15,971	14,800	1,201	14	-3	-7	-11
Centrally planned countries	5,217	4,466	2,900	238	68	-14	-34	64

\* Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1991 began Oct. 1, 1990 & ended Sept. 30, 1991. F = forecast. — = not available.  
 Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 219-0822

## Farm Income

Table 29.—Farm Income Statistics

	Calendar year										1991 F
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	
	\$ billion										
1. Farm receipts	144.1	147.2	141.3	147.1	149.4	140.2	148.3	157.3	188.6	175.8	172 to 178
Crops (incl. net CCC loans) <sup>1</sup>	72.5	72.3	67.2	69.9	74.3	63.7	65.8	71.6	76.8	80.4	79 to 83
Livestock	69.2	70.3	69.6	72.9	69.8	71.8	76.0	79.4	84.1	89.6	85 to 89
Farm related 1/	2.5	4.6	4.5	4.3	5.3	5.7	6.6	6.3	8.1	6.7	6 to 8
2. Direct Government payments	1.9	3.5	9.3	8.4	7.7	11.8	16.7	14.5	10.9	9.3	6 to 9
Cash payments	1.9	3.5	4.1	4.0	7.6	8.1	6.6	7.1	9.1	6.4	7 to 8
Value of PIR commodities	0.0	0.0	5.2	4.5	0.1	3.7	10.1	7.4	1.7	0.9	0 to 1
3. Total gross farm income (4+5+6) 2/	166.3	163.5	153.2	170.2	182.9	158.1	168.4	174.5	190.3	185.1	188 to 193
4. Gross cash income (1+2)	146.0	150.6	150.8	155.5	157.2	152.8	165.1	171.9	179.9	188.0	181 to 186
5. Nonmoney income 3/	13.8	14.3	13.5	8.7	6.0	5.6	5.8	6.1	6.1	6.3	6 to 7
6. Value of inventory change	6.5	-1.4	-10.9	6.0	-2.3	-2.2	-2.3	-3.5	4.3	2.9	0 to 3
7. Cash expenses 4/	113.2	112.8	111.0	119.0	109.3	105.0	109.8	114.5	120.6	124.2	124 to 129
8. Total expenses	139.4	140.0	137.9	143.8	131.9	125.1	128.7	133.9	140.2	144.3	145 to 149
9. Net cash income (4-7)	32.8	37.9	39.5	36.6	47.9	47.8	55.3	57.4	59.4	61.8	54 to 59
10. Net farm income (3-8)	26.9	23.5	15.3	29.3	31.0	31.0	39.7	40.6	50.1	50.8	41 to 46
Deflated (1982\$)	28.6	23.5	14.7	24.5	27.9	27.3	33.6	33.6	39.6	38.7	31 to 34
11. Off-farm income	35.8	36.4	37.0	39.2	55.2	54.5	56.3	57.2	57.3	67.0	—
12. Loan charges 5/ Real estate	9.0	3.8	2.3	-2.0	-6.4	-8.7	-8.0	-4.8	-2.3	-1.9	—
13. 5/ Non-real estate	6.5	3.4	0.9	-0.8	-9.6	-11.0	-4.6	-0.3	0.1	1.3	—
14. Rental income plus monetary change	6.4	6.4	5.4	9.2	9.1	8.0	7.7	7.8	6.9	11.5	—
15. Capital expenditures 5/	16.6	13.3	12.7	12.5	9.2	8.5	11.2	11.3	12.6	13.4	—
16. Net cash flow (9+12+13+14-15)	37.8	36.2	35.3	30.4	31.9	26.6	39.3	49.1	53.2	58.4	—

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. 5/ Excludes farm households. Total may not add because of rounding. F = forecast. — = not available.

Information contact: Robert McElroy (202) 219-0800.

Table 30.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/										1991 F
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	
	\$ billion										
<b>Assets</b>											
Real estate	785.6	750.0	753.4	661.7	586.1	542.2	576.6	599.4	605.1	614.4	620 to 630
Non-real estate	196.8	195.6	191.9	196.9	187.4	182.3	194.2	205.8	214.7	220.9	220 to 230
Livestock & poultry	53.5	53.0	49.5	49.5	46.3	47.6	58.0	62.2	66.2	69.1	68 to 72
Machinery & motor vehicles	85.5	86.0	85.6	85.0	82.9	81.5	80.0	82.0	85.8	87.4	87 to 91
Crops stored 2/	30.0	26.4	24.4	26.3	22.9	16.6	17.8	22.7	23.3	22.4	21 to 24
Purchased inputs	—	—	—	2.0	1.2	2.1	3.0	3.3	2.7	2.8	2 to 4
Financial assets	28.2	29.7	30.9	32.6	33.3	34.5	35.1	35.4	36.6	38.5	38 to 42
Total farm assets	982.8	945.1	944.0	857.1	772.6	724.6	772.5	805.1	819.7	834.6	845 to 855
<b>Liabilities</b>											
Real estate debt 3/	98.8	101.8	103.2	106.7	100.1	90.4	82.4	77.6	75.3	73.4	72 to 76
Non-real estate debt 4/	83.6	87.0	87.9	87.1	77.5	66.6	62.0	61.7	61.8	63.1	62 to 66
Total farm debt	182.4	188.8	191.1	193.8	177.6	157.0	144.4	139.4	137.1	136.5	135 to 141
Total farm equity	800.4	756.3	752.9	663.3	595.0	567.6	628.1	665.6	682.6	698.2	705 to 715
	Percent										
<b>Selected ratios</b>											
Debt-to-assets	18.6	20.0	20.2	22.6	23.0	21.7	18.7	17.3	16.7	16.3	16 to 17
Debt-to-equity	22.6	25.0	25.4	29.2	29.8	27.7	23.0	20.9	20.1	19.6	19 to 20
Debt-to-net cash income	556	496	498	518	377	328	261	243	231	221	240 to 250

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 219-0786.

Table 31.—Cash Receipts From Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1989	1990	July 1991	Aug 1991	1989	1990	July 1991	Aug 1991	1989	1990	July 1991	Aug 1991
	\$ million 2/											
<b>NORTH ATLANTIC</b>												
Maine	216	220	17	17	228	240	13	21	444	460	30	38
New Hampshire	65	63	5	5	73	71	5	8	139	134	10	13
Vermont	379	398	29	30	50	49	7	2	429	447	36	32
Massachusetts	113	116	10	10	321	303	20	30	434	416	30	40
Rhode Island	13	13	1	1	65	58	3	2	78	71	4	3
Connecticut	186	196	16	16	240	250	16	15	426	446	31	31
New York	1,037	1,983	141	147	917	1,023	83	127	2,854	3,006	224	274
New Jersey	197	196	17	17	464	452	58	52	662	647	75	68
Pennsylvania	2,611	2,714	192	206	992	1,053	66	90	3,602	3,767	258	296
<b>NORTH CENTRAL</b>												
Ohio	1,698	1,836	128	141	2,088	2,335	217	153	3,787	4,172	345	294
Indiana	1,826	2,080	155	174	2,456	2,871	215	170	4,281	4,931	370	343
Illinois	2,251	2,477	191	185	4,727	5,461	295	259	6,979	7,938	486	444
Michigan	1,311	1,398	101	104	1,611	1,785	115	138	2,923	3,183	216	242
Wisconsin	4,350	4,581	348	352	1,050	1,125	98	125	5,400	5,706	444	477
Minnesota	3,693	3,758	273	291	2,820	3,253	201	352	6,513	7,011	475	643
Iowa	5,293	5,882	467	477	3,755	4,437	271	335	9,049	10,319	738	813
Missouri	2,169	2,271	164	192	1,751	1,668	114	82	3,920	3,939	278	274
North Dakota	669	813	32	45	1,483	1,724	81	187	2,152	2,537	113	232
South Dakota	2,031	2,313	113	171	951	1,036	69	102	2,982	3,349	182	273
Nebraska	5,646	6,037	406	485	3,080	2,808	134	160	8,726	8,845	540	645
Kansas	4,416	4,896	366	348	2,132	2,099	268	163	6,548	6,995	633	511
<b>SOUTHERN</b>												
Delaware	503	460	37	40	159	184	12	25	662	644	48	65
Maryland	859	828	63	69	477	517	47	31	1,336	1,345	109	100
Virginia	1,345	1,379	97	117	694	741	74	80	2,039	2,120	171	177
West Virginia	250	269	19	23	60	70	6	7	310	338	25	30
North Carolina	2,510	2,653	208	225	2,082	2,214	213	349	4,593	4,867	418	574
South Carolina	554	577	40	47	680	599	69	81	1,235	1,176	108	128
Georgia	2,281	2,268	175	188	1,626	1,574	106	120	3,908	3,842	280	308
Florida	1,215	1,290	100	114	5,031	4,448	192	168	6,246	6,708	292	272
Kentucky	1,658	1,698	308	99	1,266	1,400	35	25	2,924	3,098	344	124
Tennessee	1,082	1,111	72	88	863	928	33	41	1,946	2,039	106	129
Alabama	1,975	2,083	176	182	696	655	32	22	2,671	2,737	208	204
Mississippi	1,295	1,322	113	123	981	1,111	21	12	2,276	2,433	134	135
Arkansas	2,661	2,706	185	243	1,496	1,553	35	38	4,157	4,259	220	281
Louisiana	614	637	60	67	1,094	1,284	17	22	1,708	1,921	77	89
Oklahoma	2,377	2,363	229	286	1,137	1,191	150	119	3,515	3,554	379	406
Texas	6,861	7,712	592	617	4,063	4,268	307	366	10,923	11,981	898	1,004
<b>WESTERN</b>												
Montana	929	884	22	55	625	742	24	50	1,554	1,606	46	105
Idaho	1,084	1,154	81	96	1,662	1,781	67	107	2,745	2,935	148	203
Wyoming	664	610	24	52	163	157	5	20	827	767	29	71
Colorado	2,649	3,029	216	178	1,321	1,184	65	99	3,969	4,213	282	278
New Mexico	974	1,046	62	64	485	483	62	56	1,459	1,529	124	121
Arizona	744	819	64	68	1,182	1,046	55	36	1,926	1,865	119	104
Utah	567	576	50	38	188	179	13	19	755	755	63	67
Nevada	142	218	14	21	102	115	6	8	244	333	20	28
Washington	1,233	1,396	110	104	2,457	2,420	140	222	3,689	3,816	250	328
Oregon	738	755	64	60	1,546	1,557	134	177	2,285	2,312	198	237
California	5,193	5,515	407	452	12,857	13,344	992	934	18,050	18,859	1,399	1,386
Alaska	9	8	1	1	20	19	2	2	29	27	2	3
Hawaii	92	88	7	7	493	499	42	42	585	588	50	50
<b>UNITED STATES</b>	<b>84,131</b>	<b>89,623</b>	<b>6,763</b>	<b>7,137</b>	<b>76,761</b>	<b>80,364</b>	<b>5,305</b>	<b>5,845</b>	<b>160,893</b>	<b>169,987</b>	<b>12,068</b>	<b>12,982</b>

1/ Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 219-0806.



Table 32.—Cash Receipts From Farming

	Annual						1990	1991				
	1985	1986	1987	1988	1989	1990	Aug	Apr	May	June	July	Aug
	\$ million											
Farm marketings & CCC loans*	144,114	135,303	141,759	151,082	160,893	169,987	13,756	12,364	11,933	11,784	12,068	12,982
Livestock & products	69,822	71,553	75,994	79,437	84,131	89,623	7,766	6,915	6,675	6,696	6,763	7,137
Meat animals	38,550	39,081	44,478	46,492	48,857	51,677	4,464	4,130	3,911	3,802	3,658	4,105
Dairy products	18,055	17,724	17,727	17,841	19,396	20,199	1,747	1,480	1,567	1,465	1,518	1,631
Poultry & eggs	11,209	12,701	11,516	12,868	15,372	15,270	1,371	1,139	1,225	1,245	1,207	1,316
Other	2,008	2,048	2,274	2,438	2,507	2,477	184	166	171	184	383	186
Crops	74,293	63,749	65,764	71,845	76,761	80,384	5,990	5,450	5,058	5,088	5,305	5,845
Food grains	8,990	5,741	6,776	7,467	8,247	7,876	884	291	304	906	1,152	861
Feed crops	22,591	16,911	14,578	14,298	17,081	19,116	1,314	1,310	1,094	1,147	1,038	1,341
Cotton (lint & seed)	3,687	3,371	4,189	4,546	5,040	6,234	219	210	156	105	80	204
Tobacco	2,699	1,894	1,816	2,083	2,415	2,738	492	18	0	0	259	459
Oil-bearing crops	12,475	10,614	11,283	13,500	11,666	12,403	539	652	518	375	381	525
Vegetables & melons	8,572	8,865	9,902	9,787	11,461	11,533	1,085	1,291	1,865	1,285	836	1,053
Fruits & tree nuts	6,946	7,252	8,062	9,204	9,257	9,306	758	428	367	617	848	727
Other	8,333	9,101	10,161	10,760	11,415	12,160	702	1,253	953	653	711	876
Government payments	7,704	11,813	18,747	14,480	10,887	9,298	-100	1,238	1,054	213	75	64
Total	151,818	147,116	158,506	165,562	171,780	179,285	13,656	13,602	12,987	11,997	12,143	13,046

\* Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period.

Information contact: Roger Strickland (202) 219-0806.

Table 33.—Farm Production Expenses

	Calendar year									
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991 F
	\$ million									
Feed purchased	18,592	20,573	19,383	16,949	17,472	17,463	20,393	21,002	20,727	20,000 to 22,000
Livestock purchased	9,684	8,818	9,487	9,184	9,758	11,842	12,764	13,138	14,737	13,000 to 15,000
Seed purchased	3,172	2,690	3,386	3,128	3,188	3,259	3,359	3,558	3,582	3,000 to 5,000
Farm-origin inputs	31,447	32,081	32,256	29,261	30,418	32,564	36,515	37,698	39,046	37,000 to 40,000
Fertilizer & lime	8,018	7,055	8,360	7,512	6,820	6,453	6,947	7,249	7,137	7,000 to 8,000
Fuels & oils	7,734	7,211	7,296	6,436	5,310	4,957	5,091	4,983	6,951	5,000 to 7,000
Electricity	2,041	1,982	2,060	1,878	1,795	2,156	2,278	1,990	1,944	1,000 to 3,000
Pesticides	4,282	3,870	4,888	4,334	4,324	4,512	4,577	5,437	5,727	5,000 to 7,000
Manufactured inputs	22,076	20,118	22,404	20,159	18,249	18,077	18,893	19,659	20,759	20,000 to 22,000
Short-term interest	11,349	10,615	10,398	8,735	7,367	6,767	6,797	6,810	6,805	7,000 to 9,000
Real estate interest 1/	10,461	10,815	10,733	9,878	9,131	8,187	7,885	7,781	7,667	6,000 to 8,000
Total interest charges	21,830	21,430	21,129	18,613	16,498	14,954	14,682	14,691	14,472	14,000 to 16,000
Repair & maintenance 1/ 2/	6,428	6,529	6,416	6,370	6,426	6,781	6,800	7,272	7,283	7,000 to 9,000
Contract & hired labor	9,379	8,938	9,427	10,008	9,484	9,975	10,441	11,211	12,662	13,000 to 15,000
Machine hire & custom work	2,026	2,213	2,566	2,354	2,099	2,105	2,350	2,674	2,634	2,000 to 4,000
Marketing, storage, & transportation	4,301	3,904	4,012	4,127	3,652	4,078	3,450	4,080	3,972	3,000 to 5,000
Misc. operating expenses 1/	9,145	10,961	10,331	10,010	9,759	11,327	11,404	12,448	12,236	10,000 to 12,000
Other operating expenses	31,277	33,544	32,751	32,868	31,420	34,246	34,445	37,582	38,669	39,000 to 43,000
Capital consumption 1/	24,189	23,758	20,847	19,299	17,788	16,740	17,075	17,553	17,545	16,000 to 18,000
Taxes 1/	4,010	4,465	4,337	4,542	4,612	4,853	4,848	6,127	5,623	5,000 to 6,000
Net rent to nonoperator landlord	6,478	5,211	8,150	7,890	6,099	7,304	7,445	7,911	8,177	8,000 to 9,000
Other overhead expenses	33,675	33,434	33,334	31,531	28,499	28,697	29,367	30,590	31,345	30,000 to 33,000
Total production expenses	140,305	139,608	141,874	132,432	125,085	126,737	133,902	140,219	144,291	145,000 to 149,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases & dairy assessments. Totals may not balance due to rounding. F = forecast.

Information contacts: Chris McGath (202) 219-0804, Robert McElroy (202) 219-0800.

Table 34.—CCC Net Outlays by Commodity &amp; Function

COMMODITY/PROGRAM	Fiscal year									
	1983	1984	1985	1986	1987	1988	1989	1990	1991 E	1992 E
	\$ million									
<b>Feed grains</b>										
Corn	5,720	-934	4,403	10,524	12,348	8,227	2,883	2,450	2,411	3,811
Grain sorghum	814	76	463	1,185	1,203	764	487	381	281	315
Barley	268	89	336	471	394	57	45	-83	62	148
Oats	11	5	2	28	17	-2	1	-5	14	28
Corn & oat products	2	6	7	5	7	7	8	8	7	8
<b>Total feed grains</b>	<b>6,815</b>	<b>-758</b>	<b>5,211</b>	<b>12,211</b>	<b>13,967</b>	<b>9,053</b>	<b>3,384</b>	<b>2,721</b>	<b>2,755</b>	<b>4,308</b>
<b>Wheat</b>	<b>3,419</b>	<b>2,536</b>	<b>4,691</b>	<b>3,440</b>	<b>2,836</b>	<b>878</b>	<b>53</b>	<b>808</b>	<b>2,817</b>	<b>1,863</b>
Rice	664	333	990	947	908	128	631	667	758	698
<b>Upland cotton</b>	<b>1,363</b>	<b>244</b>	<b>1,553</b>	<b>2,142</b>	<b>1,788</b>	<b>686</b>	<b>1,461</b>	<b>-79</b>	<b>392</b>	<b>431</b>
<b>Tobacco</b>	<b>880</b>	<b>346</b>	<b>455</b>	<b>253</b>	<b>-348</b>	<b>-453</b>	<b>-367</b>	<b>-307</b>	<b>-237</b>	<b>-79</b>
<b>Dairy</b>	<b>2,528</b>	<b>1,502</b>	<b>2,085</b>	<b>2,337</b>	<b>1,166</b>	<b>1,295</b>	<b>879</b>	<b>505</b>	<b>783</b>	<b>419</b>
<b>Soybeans</b>	<b>288</b>	<b>-585</b>	<b>711</b>	<b>1,597</b>	<b>-476</b>	<b>-1,876</b>	<b>-86</b>	<b>5</b>	<b>102</b>	<b>20</b>
<b>Peanuts</b>	<b>-8</b>	<b>1</b>	<b>12</b>	<b>32</b>	<b>8</b>	<b>7</b>	<b>13</b>	<b>1</b>	<b>-4</b>	<b>-3</b>
<b>Sugar</b>	<b>49</b>	<b>10</b>	<b>184</b>	<b>214</b>	<b>-65</b>	<b>-246</b>	<b>-25</b>	<b>15</b>	<b>-2</b>	<b>-27</b>
<b>Honey</b>	<b>48</b>	<b>90</b>	<b>81</b>	<b>89</b>	<b>73</b>	<b>100</b>	<b>42</b>	<b>47</b>	<b>23</b>	<b>18</b>
<b>Wool</b>	<b>94</b>	<b>132</b>	<b>109</b>	<b>123</b>	<b>152</b>	<b>1/ 5</b>	<b>93</b>	<b>104</b>	<b>173</b>	<b>198</b>
<b>Operating expense 3/</b>	<b>328</b>	<b>362</b>	<b>346</b>	<b>457</b>	<b>535</b>	<b>614</b>	<b>620</b>	<b>618</b>	<b>634</b>	<b>724</b>
<b>Interest expenditure</b>	<b>3,525</b>	<b>1,064</b>	<b>1,435</b>	<b>1,411</b>	<b>1,219</b>	<b>425</b>	<b>98</b>	<b>632</b>	<b>757</b>	<b>573</b>
<b>Export programs 4/</b>	<b>398</b>	<b>743</b>	<b>134</b>	<b>102</b>	<b>278</b>	<b>200</b>	<b>-102</b>	<b>-34</b>	<b>567</b>	<b>1,322</b>
<b>1988/89 Disaster/</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,919</b>	<b>2/ 181</b>	<b>148</b>	<b>2</b>
<b>Livestock Assistance</b>	<b>-1,542</b>	<b>1,295</b>	<b>-314</b>	<b>486</b>	<b>371</b>	<b>1,665</b>	<b>110</b>	<b>609</b>	<b>905</b>	<b>1,446</b>
<b>Other</b>										
<b>Total</b>	<b>18,851</b>	<b>7,315</b>	<b>17,683</b>	<b>25,841</b>	<b>22,408</b>	<b>12,461</b>	<b>10,523</b>	<b>6,471</b>	<b>10,569</b>	<b>11,913</b>
<b>FUNCTION</b>										
<b>Price-support loans (net)</b>	<b>8,438</b>	<b>-27</b>	<b>6,272</b>	<b>13,628</b>	<b>12,199</b>	<b>4,579</b>	<b>-928</b>	<b>-399</b>	<b>287</b>	<b>434</b>
<b>Direct payments 5/</b>	<b>2,780</b>	<b>612</b>	<b>6,302</b>	<b>8,166</b>	<b>4,833</b>	<b>3,971</b>	<b>5,798</b>	<b>4,178</b>	<b>6,203</b>	<b>6,695</b>
Deficiency	705	1,504	1,525	64	382	8	-1	0	0	0
Diversification	0	0	0	489	587	280	168	189	97	1
Dairy termination	0	0	0	27	60	0	42	3	14	18
Other	0	0	0	0	0	0	4	0	0	0
Disaster	115	1	0	0	0	6	4	0	0	0
<b>Total direct payments</b>	<b>3,600</b>	<b>2,117</b>	<b>7,827</b>	<b>8,748</b>	<b>5,882</b>	<b>4,245</b>	<b>6,011</b>	<b>4,370</b>	<b>6,314</b>	<b>6,712</b>
<b>1988/89 crop disaster</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,386</b>	<b>2/ 5</b>	<b>8</b>	<b>0</b>
<b>Emergency livestock/</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>533</b>	<b>156</b>	<b>138</b>	<b>2</b>
<b>forage assistance</b>	<b>2,540</b>	<b>1,470</b>	<b>1,331</b>	<b>1,670</b>	<b>-479</b>	<b>-1,131</b>	<b>116</b>	<b>-48</b>	<b>594</b>	<b>534</b>
<b>Purchases (net)</b>	<b>964</b>	<b>268</b>	<b>329</b>	<b>485</b>	<b>832</b>	<b>658</b>	<b>174</b>	<b>185</b>	<b>1</b>	<b>26</b>
<b>Producer storage</b>	<b>665</b>	<b>639</b>	<b>657</b>	<b>1,013</b>	<b>1,659</b>	<b>1,113</b>	<b>659</b>	<b>317</b>	<b>299</b>	<b>213</b>
<b>Processing, storage,</b>										
<b>&amp; transportation</b>	<b>328</b>	<b>362</b>	<b>346</b>	<b>457</b>	<b>535</b>	<b>614</b>	<b>620</b>	<b>618</b>	<b>634</b>	<b>724</b>
<b>Operating expense 3/</b>	<b>3,525</b>	<b>1,064</b>	<b>1,435</b>	<b>1,411</b>	<b>1,219</b>	<b>425</b>	<b>98</b>	<b>632</b>	<b>757</b>	<b>573</b>
<b>Interest expenditure</b>	<b>398</b>	<b>743</b>	<b>134</b>	<b>102</b>	<b>278</b>	<b>200</b>	<b>-102</b>	<b>-34</b>	<b>567</b>	<b>1,322</b>
<b>Export programs 4/</b>	<b>-1,607</b>	<b>679</b>	<b>-648</b>	<b>329</b>	<b>305</b>	<b>1,727</b>	<b>-46</b>	<b>669</b>	<b>990</b>	<b>1,373</b>
<b>Other</b>										
<b>Total</b>	<b>18,851</b>	<b>7,315</b>	<b>17,683</b>	<b>25,841</b>	<b>22,408</b>	<b>12,461</b>	<b>10,523</b>	<b>6,471</b>	<b>10,569</b>	<b>11,913</b>

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Approximately \$1.5 billion in benefits to farmers under the Disaster Assistance Act of 1989 were paid in generic certificates & were not recorded directly as disaster assistance outlays. 3/ Does not include CCC Transfers to General Sales Manager. 4/ Includes Export Guarantee Program, Export Guarantee Program—Credit Reform, Direct Export Credit Program, Market Promotion Program, & CCC Transfers to the General Sales Manager. 5/ Includes cash payments only. Excludes payment-in-kind in fiscal 83-85 & generic certificates in fiscal 86-90. E = Estimated in the fiscal 1992 Mid-Session Review based on June, 1991 supply & demand estimates. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

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## Food Expenditures

### Table 35.—Food Expenditure Estimates

	Annual			1991			1991 year-to-date		
	1988	1989	1990	Aug	Sept P	Oct P	Aug	Sept P	Oct P
\$ billion									
Sales 1/									
Off-premise use 2/	255.7	272.1	286.3	25.7	23.6	24.4	194.8	218.4	242.8
Meals & snacks 3/	196.5	205.9	220.3	21.1	18.9	19.5	153.0	171.9	191.4
1990 \$ billion									
Sales 1/									
Off-premise use 2/	290.2	289.5	286.2	25.2	23.2	24.0	189.1	212.2	236.2
Meals & snacks 3/	215.2	215.6	220.2	20.3	18.2	18.7	148.6	166.8	185.4
Percent change from year earlier (\$ bil.)									
Sales 1/									
Off-premise use 2/	4.8	6.4	5.2	2.8	-0.3	2.9	3.1	2.7	2.7
Meals & snacks 3/	8.7	4.8	7.0	4.8	3.0	5.3	3.7	3.7	3.9
Percent change from year earlier (1990 \$ bil.)									
Sales 1/									
Off-premise use 2/	0.6	-0.2	-1.1	1.2	-1.8	2.2	-0.3	-0.5	-0.2
Meals & snacks 3/	4.4	0.2	2.1	1.5	-0.2	2.2	0.3	0.2	0.4

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations & home production. 3/ Excludes donations, child nutrition subsidies, & meals furnished to employees, patients, & inmates. P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food not alcoholic beverages & pet food which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced & consumed on farms & food furnished to employees; (4) this series includes all sales of meals & snacks. PCE includes only purchases using personal funds, excluding business travel & entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr.-Econ. Rpt. No. 575, Aug 1987.

Information contact: Alden Manchester (202) 219-0880.

## Transportation

### Table 36.—Rail Rates, Grain & Fruit-Vegetable Shipments

	Annual			1990 Sept	1991					
	1988	1989	1990		Apr	May	June	July	Aug	Sept
Rail freight rate index 1/ (Dec. 1984=100)										
All products	104.8	106.4	107.5	107.3	109.6	109.6 P	109.5 P	109.5 P	109.4 P	109.5 P
Farm products	105.6	108.4	110.4	111.0	112.4	111.8 P	111.8 P	113.1 P	112.6 P	111.9 P
Grain	105.4	108.7	110.1	110.6	112.0	111.2 P	111.2 P	112.9 P	112.2 P	112.2 P
Food products	103.2	103.9	105.4	104.7	108.3	108.2 P	108.2 P	108.2 P	107.3 P	108.7 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	30.7	28.4	27.8	24.0	24.9	20.8 P	24.5 P	25.5 P	27.6 P	27.4 P
Barge shipments (mil. ton) 3/	3.2	3.3	3.8	3.8	4.0	3.7	3.6	4.4	3.8	3.3
Fresh fruit & vegetable shipments 4/ 5/										
Piggy back (mil. cwt)	2.3	2.2	1.8	1.8	1.1	1.6	2.2	2.0	1.7	1.6
Rail (mil. cwt)	2.6	2.6	2.3	1.7	1.4	2.6	3.1	1.9	0.7	1.6
Truck (mil. cwt)	42.6	42.3	41.5	37.9	42.5	48.0	45.7	46.0	41.7	36.9
Cost of operating trucks hauling produce 4/										
Fleet operation (cts./mile)	118.4	123.4	130.5	137.5	128.1	127.6	124.6	124.7	122.6	122.6

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Shipments on Illinois & Mississippi waterways. U.S. Corps of Engineers. 4/ Monthly average, Agricultural Marketing Service, USDA. 5/ Preliminary data for 1990 & 1991. P = preliminary.

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## Indicators of Farm Productivity

Table 37.—Indexes of Farm Production, Input Use & Productivity <sup>1/</sup>

	1982	1983	1984	1985	1986	1987	1988	1989	1990 2/	1991 2/
1977=100										
Farm output	116	96	112	118	111	110	102	114	117	120
All livestock products 3/	107	109	107	110	110	113	116	116	117	119
Meat animals	101	104	101	102	100	102	105	104	101	104
Dairy products	110	114	110	117	116	116	118	117	120	121
Poultry & eggs	119	120	123	128	133	144	148	153	165	168
All crops 4/	117	88	111	116	109	108	92	107	113	111
Feed grains	122	67	116	134	123	106	73	108	112	107
Hay & forage	109	100	107	106	106	102	89	101	101	108
Food grains	138	117	129	121	107	107	98	107	136	105
Sugar crops	96	93	95	97	108	111	105	105	108	114
Cotton	85	55	91	94	69	103	107	86	108	127
Tobacco	104	75	90	81	63	62	72	71	85	84
Oil crops	121	91	106	117	110	108	89	106	107	113
Cropland used for crops	101	88	99	98	94	88	87	90	90	—
Crop production per acre	116	100	112	120	116	123	106	119	126	—
Farm input 5/	99	96	96	92	89	89	87	88	—	—
Farm real estate	102	101	99	97	96	95	94	93	—	—
Mechanical power & machinery	92	89	86	80	77	73	72	73	—	—
Agricultural chemicals	118	102	120	115	109	111	111	122	—	—
Feed, seed, & livestock purchases	107	103	106	102	110	117	110	119	—	—
Farm output per unit of input	117	99	117	128	124	124	117	128	—	—
Output per hour of labor										
Farm 6/	125	99	121	139	139	142	134	148	—	—
Nonfarm 7/	99	102	105	106	108	109	111	112	—	—

1/ For historical data & indexes, see Economic Indicators of the Farm Sector: Production & Efficiency Statistics, 1986, ECIFS 5-6. 2/ Preliminary indexes for 1990 based on Crop Production: 1990 Summary, released in January 1991, & unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. — = not available.

Information contact: George Douvelis (202) 219-0432.



## Food Supply &amp; Use

Table 38.—Per Capita Consumption of Major Food Commodities <sup>1/</sup>

Commodity	1983	1984	1985	1986	1987	1988	1989	1990 2/
	Pounds							
Red meats 3/4/5/	123.9	123.8	124.9	122.2	117.4	118.5	115.9	112.3
Beef	74.1	73.8	74.8	74.4	69.5	68.8	65.4	64.0
Veal	1.3	1.5	1.5	1.8	1.3	1.1	1.0	0.9
Lamb & mutton	1.1	1.1	1.1	1.0	1.0	1.0	1.1	1.1
Pork	47.4	47.2	47.7	45.2	45.8	48.8	48.4	48.3
Poultry 3/4/5/	45.8	47.2	49.4	51.3	55.5	57.4	60.8	63.8
Chicken	37.0	38.2	39.9	40.7	43.4	44.7	47.3	49.4
Turkey	8.9	9.0	9.6	10.6	12.1	12.6	13.5	14.6
Fish & shellfish 4/	13.3	14.1	15.0	15.4	18.1	15.2	15.8	15.4
Eggs 5/	33.0	33.0	32.4	32.2	32.2	31.2	29.9	29.6
Dairy products								
Cheese (excluding cottage) 3/6/	20.6	21.5	22.5	23.1	24.1	23.7	23.9	24.7
American	11.6	11.9	12.2	12.1	12.4	11.5	11.1	11.1
Italian	5.3	5.8	6.5	7.0	7.6	8.1	8.5	9.1
Other cheese 7/	3.7	3.9	3.7	4.0	4.1	4.1	4.3	4.4
Cottage cheese	4.1	4.1	4.1	4.1	3.9	3.9	3.8	3.4
Beverage milks 3/	228.5	227.3	229.7	228.6	228.5	222.3	224.3	221.5
Fluid whole milk 8/	130.3	128.9	123.4	118.5	111.9	105.7	97.8	90.3
Fluid lowfat milk 9/	85.6	88.9	93.7	98.7	100.8	100.5	108.5	108.3
Fluid skim milk	10.8	11.6	12.8	13.5	14.0	16.1	20.2	22.9
Fluid cream products 10/	5.8	6.2	6.7	7.1	7.1	7.1	7.3	7.1
Yogurt (excluding frozen)	3.3	3.7	4.1	4.4	4.4	4.7	4.3	4.1
Ice cream	18.1	18.2	18.1	18.4	18.4	17.3	16.1	15.7
Ice milk	6.9	7.0	6.9	7.2	7.4	6.0	6.4	6.7
All dairy products, milk equivalent, milkfat basis 11/	574.2	583.3	595.1	592.8	602.6	584.5	586.5	571.8
Fats & oils — Total fat content	60.0	58.9	64.3	64.3	62.9	63.0	61.1	62.7
Butter & margarine (product weight)	15.3	15.3	15.7	16.0	15.2	14.8	14.8	15.3
Shortening	18.5	21.3	22.9	22.1	21.4	21.5	21.5	22.2
Lard & edible tallow (direct use)	4.2	3.8	3.7	3.5	2.7	2.8	2.7	3.0
Salad & cooking oils	23.8	19.9	23.5	24.2	25.4	25.8	24.0	24.2
Fresh fruits 12/	93.0	91.7	89.3	95.8	101.2	99.1	99.7	92.2
Canned fruit 13/	12.8	12.3	12.7	12.9	13.6	13.2	13.4	13.5
Dried fruit	2.4	2.4	2.7	2.7	2.8	2.9	3.1	3.1
Frozen fruit	2.9	3.0	3.3	3.6	3.9	3.8	4.8	4.3
Frozen citrus juices 14/	41.7	35.8	40.5	43.3	40.2	40.1	34.3	27.2
Vegetables, 12/								
Fresh	82.5	88.8	90.5	90.9	95.4	98.7	101.0	95.2
Canning	79.5	90.7	87.5	87.7	87.1	83.1	90.5	92.7
Freezing	14.4	17.4	17.0	15.8	16.8	17.9	18.9	18.0
Potatoes, all 12/	118.4	121.9	122.5	125.8	125.6	122.2	127.4	130.8
Sweetpotatoes 12/	4.8	5.0	5.4	4.4	4.5	4.1	4.1	4.7
Peanuts (shelled)	5.9	6.1	6.3	6.4	6.4	6.9	7.0	6.2
Tree nuts (shelled)	2.3	2.4	2.4	2.3	2.2	2.3	2.3	2.5
Flour & cereal products 15/	149.0	150.8	158.0	163.9	173.4	172.9	175.0	185.4
Wheat flour	117.7	119.2	124.7	125.7	129.9	130.0	129.2	137.8
Rice (milled basis)	9.8	8.6	9.1	11.7	13.9	14.4	15.8	16.6
Caloric sweeteners 16/	124.3	127.0	130.0	129.1	132.8	133.2	134.3	137.5
Coffee (green bean equiv.)	10.1	10.2	10.5	10.5	10.2	9.8	10.3	10.2
Cocoa (chocolate liquor equiv.)	3.2	3.4	3.7	3.8	3.9	3.8	3.9	4.2

1/ In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, & ending stocks. Calendar-year data except fresh citrus fruits, peanuts, tree nuts, & rice, which are on crop-year basis. 2/ Preliminary.  
 3/ Total may not add due to rounding. 4/ Boneless, trimmed weight. 5/ Excludes shipments to the U.S. territories. 6/ Natural equivalent of cheese & cheese products. Total product weight is greater than natural equivalent because processed cheese & cheese food are made from natural cheese & other dairy products. Includes miscellaneous cheese not shown separately. 7/ Includes Swiss, Brick, Munster, cream, Neufchatel, Blue, Gorgonzola, Edam, & Gouda. 8/ Plain & flavored. 9/ Plain & flavored & buttermilk. 10/ Heavy cream, light cream, half & half, & sour cream & dip. 11/ Includes condensed & evaporated milk & dry milk products. 12/ Farm weight. 13/ Excludes pineapple & berries. 14/ Single strength equivalent. 15/ Includes rye, corn, oat, & barley products. Excludes quantities used in alcoholic beverages, corn sweeteners, & fuel. 16/ Dry weight equivalent.

Information contact: Judy Jones Putnam (202) 219-0870.

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